



## Germany's Greatest War Adventurer

Condensed from *The World's Work* (July, '27)

*Lowell Thomas, Author of With Lawrence in Arabia*

**S**HORTLY after the Battle of Jutland, Count Felix von Luckner was commissioned to perform the audacious feat of taking a sailing ship through the British blockade in order to raid Allied shipping. The *Seeadler* maintained a destructive career for seven months, ranging the South Atlantic and Pacific, dodging cruisers and sinking merchant vessels. She scuttled 25 million dollars worth of shipping, and wrought incalculable damage by delaying hundreds of cargo vessels from venturing out of port and raising the rates of marine insurance. After a cruise as full of excitement and thrills as the voyages of Captain Kidd and Sir Francis Drake, the Count's raider was wrecked on the coral reefs of a South Sea isle.

Count Luckner, known throughout Germany as the "Sea Devil," has the enviable reputation of disrupting Allied shipping without ever having taken a human life or as much as drowning a ship's cat.

At the time when Count Luckner was raiding the seas I had been thrown in contact with the most picturesque adventurer that the World War had brought forth—Lawrence of Arabia. Here, in the *Sea Devil*, was his naval

counterpart. They were the two great adventurers of the two respective sides during the World War. While Colonel Lawrence mounted on a ship of the desert led raids across the sands of Araby, Felix von Luckner scoured the seas in a windjammer. In each adventure climbed close to its highest summit . . . I pass the story on to you in the words of the *Sea Devil* himself.

"Take a windjammer out as a cruiser. Sneak through the blockade and go buccaneering on the high seas." Such, in effect, were my orders from the Admiralty. I was selected because I was the only officer in the German Navy who had had actual experience with sail.

Our hope was to run the blockade disguised as a neutral—a thing entirely fair according to the laws of war. Although on land a soldier must wear service uniform, at sea you can fly a neutral flag and wear ordinary seaman's clothes. But you must hoist your true colors before going into action with the enemy.

We altered a staunch clipper from stem to stern, with concealed places for our guns, rifles, grenades, and other

armament, with special quarters for prisoners, two ultra-modern 500 h. p. motors for use in emergency, and provisions for a cruise of two years. In addition to 400 bunks for prospective "guests," I had special *de luxe* quarters made for "visiting" officers. Then we had to arrange quarters for my crew of fighting marines as well as for the regular seamen. Moreover, we had to do all this without it being apparent to the casual visitor. When the work was done, below deck the clipper was an auxiliary cruiser, armed to the teeth, while above deck she was merely a poetic old sailing ship loaded with a prosaic cargo of lumber.

Timber made the ideal cargo because a ship carrying lumber loads her deck as well as her hold. The piles of lumber cover even your hatches so no one can go below until you unload. Norway exports lumber and Australia imports it. So we decided to pose as a Norwegian clipper bound for Melbourne. Having served on various Norwegian ships I spoke Norse, and I chose for my crew men who could speak it also.

But first I had secret doors and hatches cut in the floor of the closets in the officers' cabins, and another under the stove in the galley. From keel to top deck we converted this three-master into a mystery ship of trick panels and trick doors. But what would happen if we were ordered into Kirkwall to have our deck load of lumber shifted and our hold searched, you ask? Ah! we were ready for that.

Of course, if an enemy patrol vessel picked us up a special prize crew of half a dozen men would be put aboard us to make sure we headed for the right port. I should have 64 men of my own to handle this small prize crew. Dinner time would come. I should say to the Britishers: "Gentlemen, may you dine well." On their way to my private captain's quarters they would leave their coats and weapons in the vestibule, within sight and just out of reach.

During the meal I should signal to my fighting men hidden on the lower deck. The floor of my saloon where the prize crew would be dining was in reality an

elevator! All I had to do was press a secret button and presto! down would drop floor, prize crew, and all. Before a man jack could jump for a weapon they would find themselves dining on the deck below—and gazing down the barrels of 20 German rifles.

Of course, it would be easy to overpower a prize crew of only six or seven men, but I wanted to avoid spilling any blood. It is better sport to capture men than to take their lives. The Allies were calling us Huns and I for one wanted to show the world how wrong they were.

I felt that it was so important to keep all of our plans secret that I fooled even the workmen who were altering the ship. There were spies everywhere. You must admire the British. They had a great espionage system and they paid their spies well. We Germans were stingy. Bah! That was one reason why we bungled.

So I told every one that the clipper was being transformed into an up-to-date training ship, to be used in training mechanics' apprentices who later on were to run motors on submarines and zeppelins. That alibi was to explain our two motors. The war had shown that German cabin boys were deficient in knowledge of nautical rigging. To remedy this, I announced, was another purpose of the sailing ship. As to the accommodations for prisoners and for our big crew, I put up signs marking off one part of the ship "for 150 cabin boys," another "for 80 apprentices" and so on.

My plan was to slip through the British blockade disguised as some other ship that actually existed. There happened to be a Norwegian vessel that was almost a duplicate of our clipper. She was scheduled to sail from Copenhagen. I decided that we should take her name, and sail the day before she sailed, so that if the British caught us and wirelessed to Copenhagen for confirmation they would receive word that such a craft had left port at the time we claimed. This other boat was named the *Maleta*.

I went to Copenhagen and got a job on the pier where the real *Maleta* was moored. That enabled me to study her.

There was one thing that promised to be difficult to counterfeit. That was the log book, containing the life history of the *Maleta*. So one night, in the uniform of a Customs Inspector, I stole aboard the ship. The watchman, as usual, was sitting near the captain's cabin. Stealthily I tiptoed to the bow and cut the ropes. A stiff wind was blowing. The ship swung around. The watchman ran forward shouting, and at the same moment I ran aft. Fumbling around the captain's cabin I discovered the log under the skipper's mattress, and hurried off in the dark.

We now painted the clipper the same color as the *Maleta*, arranged her deck the same, and decorated the cabins with the same ornaments. In my captain's cabin I hung pictures of the King and Queen of Norway. All of the instruments were of Norwegian make. I had a Norwegian library and a Norwegian phonograph and records. We had enough provisions from Norwegian firms to last us through the blockade.

The names of the tailors sewn inside my suits and my officers' suits were replaced with labels from Norwegian tailors. On my underclothing we embroidered the name of the captain of the *Maleta*—Knudson. We got up our cargo papers in regular form, signed and sealed by both the Norwegian port authorities and the British Consul. We also had a letter signed by the British Consul at Copenhagen stating that the *Maleta* was carrying lumber for use in Australia. The letter requested all British ships to help us in any emergency. This document was even stamped with the British Imperial Seal (made in Germany!)

A sailor nearly always takes with him photographs of his people. I learned from captains of neutral ships that the British always inspected the fo'c'sle to see that everything looked right there. I immediately got a lot of photographs to pass as those of Norwegian sailors' relatives and sweethearts. We sent a man to Norway for the pictures.

The British know how to search a ship. They attach special importance to sailors' letters. So we had to get up a whole set of letters for our *Norwegian sailors*, each set totally different from the

other. The stolen log gave us a lot of useful information about the *Maleta's* crew, and our fake letters were made to tally with this information. Women in the Foreign Office who knew Norwegian wrote them for us. We got old Norwegian stamps and Norwegian postmarks of various ports. Then we aged the letters in chemicals, and tore and smudged some of them.

I selected my crew without giving them any clue concerning the adventure on which they were soon to engage. Then I sent them home on furlough to prevent them from discussing the questions I had put to them. Not until the hour of departure did I send for them. Not a man quailed when our mission was divulged, and I was happy to be in command of such a crew.

Now we needed a name for our raider—one that she could take for her official name as an auxiliary cruiser after running the blockade. I wanted to call the ship the *Sea Devil*, the name by which I personally was afterwards to be called. My officers favored some name that would suggest the white wings of our sailship. So we compromised on *Seeadler* (or *Sea Eagle*.)

Every man had his rôle. Every man must now prove his mettle as an actor. Officers and sailors were given the names of officers and sailors aboard the *Maleta*. They had to get used to their new names. We had long practice drills until the new Norwegian names slid off our tongues readily. Each man also had to learn a lot about his native town that he never knew before! I had already assembled information about the towns listed in the log book. Each man had to learn the names of the main streets of his town, the principal hotels and stores, as well as the names of the mayor and other officials. Much of this sort of material had already been woven into the letters we had prepared for the sailors. Every man had to fix in his mind a whole new past life, according to the life of the real sailor of the real *Maleta* whose rôle he was to play.

One of the mechanic's helpers was slender, beardless, and of delicate appearance, and could pass well enough in

woman's clothes. Norwegian skippers often take their wives with them on their voyages. The captain's wife aboard the false *Maleta* would seem natural and tend to disarm suspicion. One difficulty was his big feet. We arranged that the captain's wife should be slightly ill and remain seated during any possible search and have a rug thrown over her feet to keep them warm.

The true *Maleta* was now due to sail in a day, so we made ready to pull up anchor. Then a wireless came from the Admiralty: "Wait till the *Deutschland* makes port." Our giant merchant submarine, the *Deutschland*, was on her way home from her famous transatlantic cruise to America. In an attempt to cut her off the British had set a double watch. So our clipper would have to slip past twice as many cruisers and destroyers as otherwise. I still hoped that if detained only a day or so we might yet be able to slip across the North Sea ahead of the *Maleta*. But we lay there for three and a half weeks and the sad news came that the real *Maleta* had sailed and passed through the blockade. If we now attempted to use her name and a search party boarded us the jig would be up.

So we hurriedly examined Lloyd's Register in the hope of finding another Norwegian ship that might correspond to us. We picked out one called the *Carmoe*. We had no idea where she was, but hoped she might be in some distant port unknown to the wary British. Now we had to change our ship from the *Maleta* to the *Carmoe*. Changing all the ship's papers was difficult. But with much use of chemical eraser we finally accomplished it. Then, when we were all set again, we picked up a commercial paper and found that the real *Carmoe* had just been seized by the British and taken to Kirkwall for examination.

Now, if you haven't any luck you must go and get some. So away with Lloyd's Register! Let's name our sea eagle after the girl of my heart. So, out with the paint and on with another new name—the name of my sweetheart, *Irma*. Of course there was no such name listed with Lloyd's, and all any British officer would have to do would be to consult the register and the jig would be up. But somehow I had a premonition that the name *Irma* would bring us through.

When we applied eraser and ink to our shipping papers and wrote in the name of *Irma*—disaster. Two erasures were too much. The ink blotted. Fate seemed to be against us, but I had no intention of giving up. Calling the carpenter, I said: "Get the axe and smash the windows and portholes." Next I called half a dozen men with buckets of sea water. "Throw it around drench everything."

And now the water flew in the cabin, in the drawers of chests, all over my Norwegian library, water everywhere. I took my shipping papers and put each page between sheets of wet blotting paper so that not only the name of *Irma* and the other entries we had changed were blotted, but every line. I even soused the log book in a bucket of water.

Then the damage was repaired. Now, if the Britisher came aboard, he would say: "By Jove, Captain, you must have had a hard blow to get knocked about like this."

And I should growl: "Yes, by Jove, everything is drenched, even my papers."

Two days later a southwest wind sprang up. The moment was at hand. Our 170-foot masts creaked. Our 9000 square feet of sail bellowed before the wind. We sailed north under a full spread.

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# This Hero Business

Condensed from The Ladies' Home Journal (January, '27)

*Lt.-Commdr. Richard E. Byrd, U. S. N., Retired*

*This article is even more significant now, than when published last January.*

FOR the first time in history, on May 9, 1926, the North Pole was seen from the air. But strange to say, my greatest discovery came on my return home. For days, there were parades, speeches, brass bands, and swirling friendly multitudes. Through it all recurred again and again the words, "You are a national hero now..."

What did it mean? I asked myself the question; but could find no answer. My idea of a national hero was somebody like George Washington or John J. Pershing. They had held the safety of our country in their hands. They had suffered the agony of long campaigns. They had led armies to victory against a public enemy. I hadn't done anything so valiant. Nor did Bobby Jones, or Gertrude Ederle, who came after me.

I wasn't satisfied; not when I thought of the thousands of American citizens who had grasped my hand since my return; and of the tens of thousands of jubilant letters and telegrams that had reached me. No, there was something more, something deeper.

The first inkling of the greatest discovery in my life came in Washington just before I faced the President and a large audience of distinguished diplomats. To rehearse some of the thoughts that crowded my mind, I managed to sneak away for a few moments in the stage wings of the giant auditorium. Suddenly I found facing me a little white-haired lady in black bonnet and gown. "You are Commander Byrd?" she asked.

She gave a quick sigh, almost a sob. Her mouth trembled. She thrust out one hand as if to touch me. Her eyes dimmed and filled. Then she cried out: "Oh, I'm so glad!" Before I could stop her she was gone. .... I went on the

stage. ... But the mystery of the little lady in black clung to me. I espied her in the audience. I managed to inquire about her.

"Poor thing," whispered my informant. "She's had a tough break in life. Lost her husband 20 years ago. Brought up two fine boys on what she could make herself. Lost both of them in the World War. Now she's all alone."

In a flash of understanding I knew I was a hero to that sad little mother, but not in the way the word is usually used. What that mother saw in me was the living memory of her husband and sons. They had been brave men. I later learned they had been adventurous. They were the kind who would have liked to have flown to the North Pole. To her I was the living flesh she so longed to touch. I, she knew, was son and husband. Wife and mother of mine would sit out there among a great throng and hear my virtues extolled, even as she might have sat and listened had Fate been equally generous to her.

My memory sprang back to Annapolis days. I recalled the first time I marched down the street as color bearer. The band was playing. As I passed, men uncovered, ladies applauded, children waved their hands. I was stirred by the show of admiration. I felt brave, superior, triumphant. Then, with a thump, came the truth. I blushed right out in public. People weren't saluting and cheering me. They were saluting the Stars and Stripes which I carried.

Exactly that was happening now. The cheers and the handclaps, the waving hats and flags, the music and the speeches, weren't really meant for me any more now than that boyhood morning in Annapolis when I marched at the head of the procession holding

aloft the flag. The banner I carried now wasn't so visible. It didn't in its symbolism depict the stormy history of a people.

No, my banner—I was the banner. In me and my single success people saw success that might have been their own. In me others saw their sons, wives their husbands, sisters their brothers. In me men saw what they might have done had they had the chance. In me America for the moment dramatized that superb world-conquering fire which is American spirit. For the moment I appeared to typify to them the spirit of America. This was my discovery.

Now that my eyes were opened I began to look about for more manifestations of this discovery of mine. I went to the Middle West to lecture. In a small town, a leading citizen drove me about the parkways. "By the way," he said, "the engineer of our steam roller told me the other day he hoped I'd introduce him to you when you came here."

"Why not see him now?" I suggested. We drove to a frame bungalow near the edge of the town. Jim came out, wiping his hands. His whole face lit up when his townsman introduced me. He began to talk, haltingly at first, about a scheme for vertical flight, a sort of helicopter he had invented. He poured out his whole story, a lifetime of struggle and hard work and poverty, dedicated to the advancement of aviation.

As we drove back the leading citizen said: "I have known him for years. That is the first time he has ever loosened up. You see what it is, of course. He thinks you would do the same as he is doing if you were in his boots. You have helped him just by listening to him."

Listening became one of the best things I did. The exciting moments I looked forward to were where someone got me off in a corner and poured his story into my ears. These stories were superior to mine. Mine was hemmed in by realities like time and distance, whereas the others were usually bounded only by the elastic horizon of human imagination.

My mail alone in the months since my return contains a thousand stories of human happiness, hope and heartbreak. "Why don't you get out a form letter thanking these people who write you?" suggested a friend. I handed him a letter I had just opened, which read:

"Dear Captain Byrd: I keep house for my two brothers. Our mother and father are dead. It may sound silly to tell you such things, but all last winter we were very unhappy. One of my brothers lost his job. The other was sick and couldn't work for several months. Then we began reading about your plans and later about your fine trip to the North Pole. Pretty soon we all began to buck up and now things are going fine. I think you helped."

"Sounds like a patent medicine testimonial," my friend said skeptically.

"It might," said I, "if there were only one. But there are hundreds. Many talk like that when I meet them."

"Well, you're a national hero, aren't you."

I looked him in the eye. "I'm really only carrying the banner for a little while," said I.

A tumult in the street below our window put an end to our talk. We looked out, knowing what was happening. Black ribbons of humanity lined the avenue. A band flashed into view. Then came an endless column of automobiles. In the leading car, framed with flowers, stood a youthful figure, arms outstretched to the cheering multitude. It was Gertrude Ederle. I did not need to be told there were tears on many cheeks; that the hearts of thousands were beating as if to burst; that a mad enthusiasm swept abreast that youthful figure in the leading car.

I leaned far out. I wanted to shout a message, to deliver something I had been holding. I wanted to shout: "Here is the banner!" and cast that invisible precious something into the outstretched hands of the girl in the leading car. But I did not need to. The lusty throats of ten thousand Americans were shouting my message. And the banner was already in the hands of its next fortunate bearer.

That's what this hero business means.

# A Trans-Atlantic Air Service in 20 Years

Condensed from Popular Science (August, '27)

*Commander Richard E. Byrd*

LINDBERGH'S superb flight to Paris, and Chamberlin's to within 110 miles of Berlin, aroused such world-wide rejoicing that their priceless contribution to the science of aeronautics has been largely obscured.

Both of them demonstrated three important things: they took what were virtually commercial-type planes and flew them 3600 and 4100 miles, respectively, without mishap, proving that their craft were no freaks; they steered the whole way by the new earth inductor compass, proving its reliability; and they kept their air-cooled motors turning unceasingly the whole way, a test which alone was nearly worth their entire efforts.

Many have disparaged the flights as a contribution to commercial transoceanic air lines, feeling that they were no more practical, from the point of view of passenger portage, than a man walking a tightrope across Niagara Falls. These are not sound criticisms. Bleriot, on his first crossing of the English Channel, was regarded as a daredevil. Yet his example inspired engineers and capitalists to establish the London-Paris air line that now operates daily. Even in the early days of our transcontinental railroads, people thought that an engine breakdown would be fatal, from bitter blizzards or tomahawking Indians.

It will be some 20 years, in my opinion, before regular commercial trans-Atlantic air service is established. What these two pilots have done is to reveal the nature of the hazards by first-hand experience, and, like Bleriot, to inspire men with new confidence that they are not too great to be conquered eventually.

They have demonstrated, for one thing, that ocean weather data must be collected scientifically. Our Weather

Bureau has made a science of weather prediction in this country. But we know relatively little about the weather over the ocean. Reports are based on only spasmodic observations by passing ships, taken, of course, at sea level. Depth of fog, height of wind disturbances, thickness of cloud formations and the like have never been gathered. If ocean flying is to be practicable, such a continuing weather service will have to be established.

The danger of engine failure must also be eliminated, by replacing single-engined planes with multi-engined machines capable of being kept aloft by only part of their power units. Certainly there will have to be landing stations along the way. The idea of great floating hangars is practical, anchored in the ocean like man-made islands, provided with food, sleeping quarters, fuel supplies and wireless station. The greatest problem will be to anchor the floats. Seadromes should be common sights over the ocean within a few years. There will also have to be fast patrol craft along the air lanes to act both as lightships and rescue units.

It has proved difficult for rescue vessels to find a fallen plane. Passenger planes will have to have a seaworthy hull so that they can float for an indefinite time and even make some way through the water. They will have to be equipped with radio that can be used afloat as well as aloft. That is not the case with our present plane radio equipment.

There is bound to be a great advance in airplane design before we shall be able to buy a ticket to Europe by air. No average passenger could stand the present strain on nerves and body that more than 30 hours aloft entails. It is

a common thing for Paris-London passengers to arrive with green faces and heaving stomachs due to air sickness resulting from their plane's leaping about over the Channel. As with steamers, the relief will lie in larger and larger planes.

Then there is the constant roar of an airplane's motor, always disagreeable even to the accustomed pilot. Only a few weeks ago a plane with muffled motor flew over the Hudson, making little more noise than an automobile. The trouble is that the muffler reduces the power of the engine.

Much has been done in the way of personal service aboard European passenger planes. Meals can be served and naps taken. But in the day and a half crossing of the Atlantic by air the passenger will have to be warmed and fed and entertained if his patronage is to be kept.

This year the Germans, in particular, have gone well ahead with design of passenger planes. They are building a machine that utilizes the wing for space for passenger cabins. This means a wing six to ten feet thick. At first thought such a condition would seem detrimental to the plane because of wing resistance. But it is the vacuum above a wing rather than the push of air under it that stands for lifting power. Therefore a deep wing front is really beneficial. The trans-Atlantic plane of 1950 may have wings thick enough for two tiers of cabin and stowage spaces.

Naturally the multi-engine plane must have its engines accessible from the central station. Yet, strangely, this was never done till 1926. As planes grow, also, the fire risk will grow with them. Possibly some form of alcohol will develop into a cheaper and safer fuel than gasoline.

This is a good example of how much has to be accomplished before the feats of Lindbergh and Chamberlin can tie up with practical commercial flying over the same route.

I have been asked if there will be helicopters on the large ocean planes of the future, making it possible for them

to hover. Frankly, I see little promise in the helicopter. On the other hand, I confess to a growing enthusiasm for using parachutes on planes to lower them slowly in cases of emergency. Size of plane need be no hindrance to very large parachutes, or perhaps several suspending different parts of the machine.

Airplane industry is still in its infancy. One thinks of Lindbergh's plane as a "stunt" plane built essentially for the trick it had to play. Lindbergh actually tried to order such a plane, but failed. His plane was an accepted type regularly built, and only added to somewhat in dimensions to fit it for the great adventure. Such planes could be turned out in quantity with perfect ease. Is this not a true step forward?

Perhaps the success of the earth inductor compass was the most important single item of achievement. Though not new in principle, it took the flights to Paris and Berlin to win full confidence for it. The reliability of the other instruments was likewise proven. Sluggish altimeters might well have meant a crash on the sea surface. It is profoundly reassuring to know that many unbroken hours of high speed flying does not put them out of kilter. We should likewise take off our hats to the air-cooled motors which made both flights possible—no water pumps, pipes, and strainers to become stopped up on such motors.

Although aviators are primarily interested in the technical aspects of the trans-Atlantic flights, we cannot blind ourselves to the good they did in international relations. Lindbergh's feat struck a responsive note of friendliness in France that months of diplomacy could never have attained. In like manner, Chamberlin's magnificent "On to Berlin" flight served immeasurably to bring new understanding between the people of America and Germany.

I predict that once trans-Atlantic service is established, say 20 years from now, there will be life-sized statues of Lindbergh and Chamberlin in the home office. They will certainly deserve it, too.

## Is Birth Control Right?—3

Condensed from *The Forum* (July, '27)

G. A. Studdert Kennedy

NO problem comes nearer home than birth control. A man and woman with a small income to live on, having welcomed with joy a small family, are forced at last to face the question: "Can there be another?" Nature's answer is clear and unequivocal: "There can be and there will be, —unless...." A man stands face-to-face with a doctor who says gravely: "She has come through this with very little to spare, and if you want to keep her, there must never be another." Nature's answer is just as clear. "There will be another, and death with it—unless...." Unless what? They want to do right, but what is right? The medical faculty are divided on the question and not eager to volunteer advice. And the priest or minister says, "There is no way of birth control that is right, except one, and that is the hard way of self-control."

Self-control ordinarily means moderation. But if they are to be quite sure that there will be no more children, it means much more than moderation and consideration. Can you not imagine the silence that falls on these two as they contemplate what it means? Self-control amounting to total abstinence, self-control as a means of checking the birth rate, has never been required of Christian people in any previous age. It is an entirely new moral demand. And just because it is so difficult and makes so great a call upon the loyalty of the lovers, it appeals to some as being the highest right. But is the hardest course of necessity the right one?

Why is it wrong, or less right, to use modern methods of contraception? It is said to be "unnatural". Contraceptives are certainly "unnatural"—as unnatural as surgical instruments. Nature's method of securing quality of life is to produce an enormous quantity and eliminate the

weakly. "I've 'ad eleven and buried five, and so I know what trouble is," is a common story among the poor, and used to be common among all classes. Against that method we have declared war.

If Dr. Friend had not been so clever, Dolly and Joe might have died that night we both remember well, but he saved them by his "unnatural" devices, and they are asleep upstairs. Their places at life's feast, thank God, are not vacant for some new comers to fill up.

There is something repulsive about surgical instruments of all sorts. I for one confess to a horror of them all, silver tubes, plates, trusses, and all the rest of it. But necessity and custom quickly remove that horror in thousands of cases. Is my repulsion from contraceptive devices in any way different from that? True, contraceptives cannot be defended as necessary in the face of death, even when childbirth is a danger to a beloved life. There is the alternative. We could live together as beloved companions. Is that God's Will, the highest right, for such as we? Is the sole purpose of the lover's crowning act the purpose of having children? Is it always wrong or less right when that purpose is not there?

One of the bewildering things about the way in which the moralists talk to us on this matter is that sometimes they seem to regard the act of union as something sacred. And at other times as almost unclean. What makes the difference? When is it "sacred" and when is it "unclean"? I can see that there is a world of difference between mere passion and pure love; that only a loyal love having behind it the high purpose of fidelity has any right to express itself that way.

But suppose there is no question of that. Suppose our love is fine and loyal,



is the act of union still unclean unless there is the purpose of having children? Is that purpose the only way of sanctifying the act? That is the position held, in theory at least, by the Roman Church. In practice it would seem obvious that in many cases where children are brought into the world recklessly, and with no regard either to their future or the mother's health, the willingness to bear children does not prevent the act of union from being bestial and unclean. The dread of unwanted children is, and always has been, a torment to thousands of women; and to suppose that the presence of that dread sanctifies the act of union seems an abominable doctrine.

Mutual consideration for one another combines with a high sense of responsibility for the welfare of the children to force upon modern married lovers an inevitable choice between celibacy within the marriage bond and some method of artificial contraception. For most couples the large families of bygone days are simply out of the question under modern conditions. It is definitely wrong to bring children into the world for whom we cannot decently provide. Up to a point we can economize and cut down our standard of life and education, but beyond that point we can not go for the sake of the home itself. There are men and women who can and do live together for years without union and feel no strain which is beyond their power to bear; but to lay down that law for all married people is unjustifiable and dangerous. Unless the two are of a particular temperament, the strain may easily cause a rift between them that may become fatal to their happiness. Where the act is the final sacrament of tender, honest, faithful love, there cannot be anything unclean about it, except in the eyes of the unclean. There is something unclean about extreme Puritanism. Any teaching which makes the body and its natural desires evil *per se* appeals to me as Satanic.

The real danger of sex lies in its power to become an unrestrained obsession. The gospel of expressionism, encouraging us to let ourselves go, is morally disastrous. This gospel—largely a reaction against unwholesome Puritanism—leads to bad birth control. Men and women

shirk the duty of parenthood altogether or are content with one or two children when they could easily provide for and educate more. This is morally wrong, and those who do it will pay the penalty, for a thwarted parental impulse is fatal to the real marriage relation.

That this selfish and immoral birth control is all too common is one of the chief reasons why moralists attempt to prohibit birth control of any sort. The power to control the incoming stream of life has been blindly and badly used, and there has been no wide-spread moral teaching about it,—largely because the moralists have condemned the use of the power as evil in itself.

This has had the worst possible results. Research has been carried on under a cloud with the result that a large number of harmful and ineffective devices are sold, and knowledge of the wrong sort is brought to the wrong persons in the worst possible way. Thus child murder and the practice of abortion have actually increased: Women who have put their trust in these methods, and have found them failures, are, in their desperation, driven to these abominable expedients.

For this state of things the highly moral ostriches must share part of the blame. There needs to be a clearing of air on the whole subject. The power of controlling conception has come to stay, and its coming is fraught with tremendous possibilities for good or evil to the human race. A new responsibility is laid upon men and women.

Everything finally must depend upon a wholesome public opinion, and that can only come into being as the great multitude of fathers and mothers act together, with sound medical advice, as seems best for their families and the preservation in beauty and harmony of their own love. Whether contraceptive methods are right or wrong depends entirely upon the motives with which they are used. Knowledge of the best methods ought to be easily accessible to every married couple, rich and poor alike, and careful teaching as to the responsibility involved ought to be a part of the preparation for marriage which every couple ought to make.

# Crowd Wanderlust

Condensed from *The Century* (July, '27)

Walter S. Hiatt

NOT so long ago, in quieter days, travel for pleasure was often considered the sport of spend-thrifts, or at best the recreation of harmless old people, preferably men. Today people are ashamed to stay at home.

Last year a steamship man organized a world university cruise for men students. He had over 1000 applications from young women who didn't know it was a cruise for men only. On a recent trip the *Leviathan* carried 3200 passengers, 900 of whom were students.

Travel has become the chief of all outdoor sports. Go! That's the new crowd psychology of all the peoples of the earth. Go! It's grand fun. And everybody's doing it, especially the women. The pre-war traveler who, loaded down with baggage and guide-books, took his travel seriously, to improve his mind, is all but gone.

Proof of this new travel mind has lately been provided by the failures of world expositions in London and Philadelphia. To the Philadelphia exposition came five, not 50, million people as expected. People have traveled so much that they have seen most of the things expositions provide, or else they wish to see their sights at the point of origin, not in glass cases. Above all, when they travel, it is frankly to enjoy themselves.

Coney Island has for several seasons complained about the unfavorable weather that keeps away great crowds. It is not the weather. Resort managers about

London and Paris have the same tales to tell. Paris is dead on Sunday. People begin on Saturday to leave for the country, they range for hundreds of miles over France, instead of going for an afternoon walk on the boulevards, or taking a ride on the Seine boats. On holidays, Sundays, in vacation time, Berlin, Munich, Vienna, empty themselves in the same way.

Fear of strange places is no more. That mid-Victorian fixity, primness, these are with the snows of yester-year. Crowds are roving the wide world. I've seen Russia topsyturvy with such crowds, piling on trains already overcrowded, then piling for more room on the car roofs. I've seen the same spectacle in Rumania, other crowds in Turkey, Persia, going afoot, on horseback, in wagons, carts, going. And it was these people, particularly the Orientals, who before the war regarded the American or European traveler as some sort of a lunatic. To them the objects and pleasures of travel were unintelligible.

The World War deeply stirred the 65 million mobilized men. It opened new horizons to their hundreds of millions of fathers, mothers, wives, sisters, started them going, physically and mentally. How could it have been otherwise? Millions always on the march, minds working, filled with hope, fear, wonder. Stimulating instruments to set them going have been the free railway ride furnished by governments

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203

to soldiers' families, the wider use of the automobile, the steamship and the airplane, the radio, the newspaper, more money, more books, broader geographical information, more international trade. These are the handmaidens to the spirit of motion born of the war.

The love of jazz, the recklessness, the irresponsibility of post-war people are manifestations of the same motion spirit. Behind this desire to go, stand too, a multitude of minor sports. Never has the world seen such a development of sport. When one goes somewhere, one must do something, play golf, tennis, see a horse-race, a motion-picture. The world is motion mad.

In Central and South America, in Malaysia, everywhere, the motion spirit is working. I have just seen it in the West Indies. The Americans built a few hundred miles of road in Santo Domingo, brought in automobiles. Now with their last dollars the people buy or hire automobiles, drive them over impassable roads, or make long journeys on mule-back or afoot—the go spirit has entranced this fairy-land.

There are about 50,000 Americans resident in England, and a larger number in France. The number of Americans who go abroad is now annually about 400,000. The American Legion will go 40,000 strong this September, and the fact hardly raises comment. What would have been said in 1914.

Our go spirit has resulted in building more than 10,000 wayside motor-camps throughout the country. Significant of the nomad spirit is the fact that in 1925 there were 15,280,000 visitors to national forests, 3,000,000 more than in the preceding year. What's happening here is happening in every land, more bridges, tunnels, roads, more automobiles, more hikers, more ships dotting the seas, more people going.

The motion spirit is encouraged by governments through official travel bureaus, by tourist agencies, by banks, by the suggestion of advertisement, by books of travel, by hotels and resorts providing comfort for travelers. People are no longer content to read about strange places, listen to lecturers; they want to be actors in the great drama of beholding, finding.

At certain holiday periods it looks as if all England was moving across the Channel on the way to France, Belgium, Italy, there to fight tides of Germans, Hollanders, Spaniards. Today people stride the earth with the ease of a Colossus.

A new trend of world travel is toward the United States. Just as Americans want to see the older lands, their wonders of art and architecture, their strange customs, so the people of the older lands are eager to get acquainted with the most talked-of country, see its marvels of industrial equipment, its hospitals and educational institutions, whatever is commonplace to us but strange to them.

Perhaps the chief fruit of all this travel for the individual is health. Cage the lark and it dies. Travel gives one a mental and bodily shaking-up, leads to a readjustment of vision. It brings an energizing thrill no other sport can offer. It develops courage, confidence, makes one self-important. Travel leads to dreams, dreams before the journey, dreams on the way, more dreams at its conclusion when any hardships are forgot.

If the World War had any compensations, the travel spirit is one of them. It awoke the instinct to try to be careless, to seek more freedom; and does not freedom ever lie over the hill, across the sea, somewhere else?

Let's go see.

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## "Nothing Shocks Me"

Condensed from Harper's Magazine (July, '27)

Mary Agnes Hamilton

I MET her again at a dinner party. Fifteen years ago she was the shy, reticent daughter of a Lutheran pastor, having the air of one just interrupted in reading her prayer book and finding the world both troubling and strange.

"I heard a story the other day that amused me," she was saying to one of the men.

"Yes?" he said. "What was it? You're not afraid I might be shocked?"

They all laughed, and she proceeded with a narrative whose central incident was of what used to be called a very French type: it culminated in an expletive once confined to the stables.

Everyone laughed.

"Oh, that's nothing," said another woman. She proceeded to broaden the treatment, and the conversation moved, easily and freely, along what used to be called smoking-room lines.

This progress from being shocked by everything to being shocked by nothing is typical. "Advanced" has come to mean "incapable of shock."

Talk is the key to life. Listen with a detached ear to a modern conversation and you will be struck, first by the restriction of its vocabulary, and second, by the high proportion, in that vocabulary, of such words as, in the older jargon, "no lady could use." Most of these words belong to a common family: they are words describing the physical facts of life and, above all, the physical facts of the relation of the sexes. In Ernest Hemingway's completely conversational modern novel *The Sun Also Rises*, for example, the word "bitch" occurs with wearisome iteration; acts,

indeed, as a sort of refrain. Another group that does excessively heavy duty is the expletives and "swear words" that have no real significance in this unbelieving age.

In this so-called emancipation of speech women have been the pioneers. Once the measure of refinement was sensitiveness to the largest variety and greatest number of shocks. The perfect lady was shocked by nearly every fact of life. Death was described as "passing," birth as an "interesting condition," and so on. Emancipation, beginning as a refusal to admit that there are any words that may not be mentioned, has landed us, at present, in a curious imprisonment. The one-time unmentionables have become the staple of conversation. They are never off duty. We are so busy not being shocked that we do not see the fetters which our preoccupation imposes.

The zest for the utterance of the one-time forbidden word, and its employment as a sign to one's self and others that one is immune to shock, is producing a *rigor mortis* in our language. Its growth, through expressive slang and through a more delicate adjustment of words to meanings, is being arrested; and the limitation, as is natural, works back from words to ideas.

Color, as every artist knows, is a matter not only of intensity but of value and relation. To use nothing but scarlet is not the means to a brilliant effect any more than is the use of heavy type all over a page. The effort to make everything salient defeats itself. So the over-emphasized high note of modern language ends in monotony. Range and freedom in language imply a scale of values. To admit any such scale is to

admit the possibility of being shocked. But to be shocked is out-of-date. To confess a capacity for it is to confess to provincialism. So if a modern happens on a word that produces in him any faint reflection of that sense he immediately utters it, in as loud a tone as possible, by way of exorcism. Conversation consequently resounds with these words, and for all its blaring noise grows lifeless and dull.

The same dullness carries over to the theatre. Is the Censor perturbed because it attempts, incessantly, to shock its audiences? What he might more reasonably be troubled about is the fact that it cannot possibly do so. Audiences cannot be made to recoil with painful astonishment from any fact of life. Cruelty, perversion, obscenity—all these are tried, and the audience remains utterly unmoved. Dramatists thoroughly involved in the effort to do "strong" things get "stronger" and "stronger", and their audience's reaction gets weaker and weaker.

Shock of some sort is the dramatic weapon *par excellence*, but it seems impossible to rouse people today by showing them what exists. They know. How inexpressibly tired we are of bedroom scenes, of prostitutes at elegant dinner parties, of the discussion of babies months before their physical birth, and of all the variants of the Oedipus complex!

In fiction, in the same way and for the same reasons, the cult of violence has recoiled upon itself. The novelist is being beaten off the field by the criminologist and the psychiatrist. Freud is one of our best sellers.

It has escaped the notice, apparently, of our playwrights and novelists, that there is another kind of shock available to the artist—the aesthetic. You cannot show the up-to-date denizen of our world a physical fact that he does not know, but you might reveal to him a feeling.

For the old regime no one need feel any regret. Thousands of young men and women brought up under its false standards of "decency", its blank conflict with actuality, had to choose between

stultification and rebellion. The motions of breaking out of a strait-jacket inevitably lack elegance. Before, everything was wrong. After, nothing was.

The progress of the refusal to be shocked has been rapid. Indeed, beginning as a refusal, it has become an incapacity. During the War primitive instincts were called forth, commended; a new philosophy arose to assure us that those instincts alone were real, and that any attempt to control them was dangerous to mental balance.

Experience—conceived as a personal right to touch, taste, and handle everything—is the will-o'-the-wisp which carries our moderns on, through wreckage and disillusionment, perpetually seeking something which they do not find. They think of it as something external; they imagine that life is made up of experiences and, hastening from one to the next, they cast aside every principle of selection. Yet experience is intensive, not extensive; exists in the mind rather than in circumstances; is a function of the experienter rather than of the thing experienced. It is a flavor which gluttony misses as surely as does indiscriminating hunger.

Our reaction to the old morality has, really, been too simple. Like children, we have assumed that nothing is worth eating but forbidden fruit; and we eat it, till we are sick of it, and talk about it, as if the world contained nothing else.

Sex is not the only fact in life, although it was the one our grand-parents decided to say nothing about. Nor is sex limited to its physical expressions, although these were the ones they made taboo. There is more in the world, more in the spirit of man, than "facts" can cover or express. If we are to escape from boredom, we must retrieve some power of resistance to facts, some recognition of forces within ourselves, must recover, in a word, the capacity to select and choose. Things now stifle us. We gape at them, and cannot so much as organize them in a series. Our color spectrum has been shortened. We have stared at red till blue, green, violet, orange, yellow, elude us. We need to rub our eyes and look again.



# A Letter to My Dog

Condensed from The Atlantic Monthly (July, '27)

Sir W. Beach Thomas

MY Dear Whuff,—

Is it illogical to indite you a letter? I do so because in this way I can most easily make explicit to myself just what I feel about our friendship, and how the miracle is possible that you and I, as thousands of others in like case, can be friends and brothers.

An intense desire to understand me has developed your intelligence, but perhaps your affections and emotions matter more. The old tag, of course, is a lying one:

*A woman, a spaniel, and a walnut tree;*

*The more you bash 'em, the better they be.*

They are better in the sense that they have undergone a stronger test of their tolerance, but in that sense only do they enjoy persecution. Your gift of forgiveness was a rebuke to me that day I returned from a sporting expedition. With cruel carelessness, I had allowed you to see me go forth with my gun, closing the door quickly between us. You did not bark or protest in any way. But you went to my bedroom, a place you had seldom entered, pulled an old shooting jacket from the cupboard, and lay on it, its smell in your nostrils, till I came back. There was no touch of rebuke in your welcome; but the mute protest was so unendurable that next time I will offend a neighbor by taking out a dog too many rather than leave you to pine.

Your immense joy in going out with a gun is inspired in part, I must believe, by feeling that we are particularly *en rapport* when in pursuit of game. We are primeval hunters, in some sort equals.

Yet you bring to my feet proudly and affectionately, the prey you would give your family in a state of nature.

You know when sport is afoot by a number of signs. If I come down to breakfast in a blue serge suit, your ears are depressed by half an inch, and with your drooping eyes, your long ears falling beside your sad sapient face, you bear an unmistakable resemblance to that print of a bewigged judge among my ancestors. If the suit includes a tail coat, you know that it cannot portend even so much as a country walk. How different if the clothes are those which go with gun and cartridges! From brain to spine the excitement travels. A shiver invades you. If you have enough control to lie down during breakfast, it is with one alert eye fixed on me. If I rise you paw the door in utter impatience to reach the gun cases in the hall.

Not many things baffle you when it is a question of game. How you lift your head for partridges and waver this way and that, indicating that the scent has more than one source! How close to the ground and steady your progress in the wake of a rabbit. Your speed and excitement rise visibly when you become aware of a pheasant. Tell me how it is that the only bird, other than the game bird, that at all excites you is the lark. I knew two setters that suffered from a like weakness. Since you excel me by 340 to 1 in the sense of scent, I cannot pretend to understand your sense any more than you can interpret my brain.

Sometimes your confidence in me is undeserved; the "praise that hurteth more than blame," as Whittier wrote. When the birds are flushed and the exciting shot is heard, you must believe that a bird has fallen. It is quite impossible for you to believe that Homer

has nodded, that your god has been hampered by mere weakness. You are as sure as John Stuart Mill that similar causes have similar effects. On the rare occasions when two birds have fallen to one barrel, what trouble have I to induce you after retrieving one to look for the other. You seem to say "Why, I've just brought it. Have you forgotten already?"

We have not put upon you the indignity of learning "parlor tricks." But you will play any game that has any sense in it and an athletic savor. And how quaintly the primeval instinct dovetails into a more lately developed mood when we try to rob you of a bone! You growl furiously, but at the same time deny the anger by a furious wagging of the tail. A stranger would not know which end to believe.

Your reason has always wanted to grasp what was just beyond you, and you have therefore learned wonderfully. With great labor you have learned a few words. I put the number down at about 10 or 11: "here; lie down; heel; mat; basket; pussy; fetch; shoot; seek; good dog; Whuff. Some you learned by much repetition; one by the intensity of your jealousy. Pussy used to annoy you by deliberately walking past you and tapping your face with her vertical tail, and you came to dislike her so completely that even the word "pussy" on a person's lips made you uncomfortable.

The depths of your sex loyalty are profounder than ours. The dog that will attack a bitch is scarcely known; and this same courtesy you extend to the human child. The infant is not born who can try your tolerance too hard, whereas a cat will scratch an offending baby. My neighbor's terrier, waked suddenly by a teasing prod, snapped his teeth on his master's nose. Poor dog! With what obsequious obeisance he cringed before that outraged organ when any cruel allusion was made to it. But you have reached far beyond such elemental relapses. The brain in that big forehead—the heaviest brain of any dog—has given you a reverence that no excitement, however sudden, can shatter. Even if you are ill or in pain, you will let me subject you to any painful measure,

quite sure that I know best, or at worst that my intentions are good.

With other big-browed spaniels and a few retrievers you have lost, in zeal to understand the human mind, many primeval instincts. You do not revolve three times, as if the world were still clothed in long grass, before settling to slumber. You do not dig holes and bury bones and bread. You have no trace of savagery when in pain.

I find differences between kinds of dogs as between races of men. The toy dog is very clever. It is on record that one who became a great stealer of eggs carried the emptied shells to the big dog's kennel. Such low cunning is beyond you, because it is outside your character and desires.

In your sex I find more imaginative sympathy; in the females more keenness and persistence. She is much nearer the pre-domestic dog than you, still the slave of the primal necessities of breeding and acquiring food. A spaniel bitch belonging to a friend of mine was caught in a poacher's trap, where she had strayed, heavy with pup. After ten long days she was at last discovered, emaciated to a skeleton, but alive and giving suck to nine puppies. You would have died of hunger and distress in half that time; a combination of self-pity and hunger would have destroyed you.

I might say that you possess imagination, but not reason. You throw yourself so whole-heartedly into our thoughts, cling so to our habits, so obey our speech, that your mind jumps with us—*Les beaux esprits se rencontrent*; and if you have not a *bel esprit*, then man and dog never loved one another.

Companionship with me—that is your consummate pleasure; and if two animals enjoy companionship as you and I do, each must surely understand the other, by virtue of some sense of which this reason of our boasting is a mere branch. If you possess no reason, you are conscious of something better and more full of meaning even than instinct.

Ah, Whuff, there my letter ends. You can understand it as well as any human being in like case; for your short, short life is over. Can I bear to seek another companion?

# Your Family Tree

Condensed from *The American Magazine* (July, '27)

*Albert Payson Terhune*

MISS SMITH had brought the conversation deftly around to genealogy

"Of course," she said, "I don't believe in boasting about such things. But it is a source of keen delight to me that I can trace my descent unbrokenly to William the Conqueror."

She looked complacently about her. Jones was the only one of us to answer.

"Yes," he agreed, "it must be great to be able to trace your ancestry like that. I can't. I don't know anything about my ancestors—even who my own parents were!"

Miss Smith glared at him, thinking he was trying to be funny. But he was not. I knew Jones well. He began life as a foundling asylum waif. But it is the finish, and not the start of a race, that counts. By brains and pluck he has worked his way up to an enviable pinnacle in the business and social world. Never did he make a secret of the foundling asylum. Therefore, nobody thought the less of him for it. It is only when a man tries to forget, that others insist on remembering. That same rule seems to apply to many things.

"At least," Jones added, "I have one advantage. There's no proven limit to my ancestry. I can claim almost anyone, from Napoleon to Charlemagne."

In a way, it is true. Jones probably is descended from Charlemagne. So are you. So am I. Though it's little enough to boast of.

It's high time someone put a large stick of dynamite under the ancestry fetish that has caused so much needless pride and chagrin. With a professional genealogist, I have been working on the subject. Suppose, for instance, you and I are descended from William the Conqueror, that swashbuckling Norman

duke, son of an unwed mother. He was in his prime in 1066 A. D.

Statistics allow something like thirty-three and a third years to each average generation. That means 26, or more, generations between you and William the Conqueror.

You had two parents, and four grandparents, and eight great-grandparents, and sixteen great-great-grandparents; and so on. Continue doubling, for each generation, till you pass 26. That means you have (roughly speaking) about forty million ancestors since William the Conqueror. It sounds preposterous, I know; but get a pencil and paper and figure it out for yourself. At the end of your figuring you will find you have had fully forty million ancestors since 1066; not deducting, of course, for the fact that the ancestral lines must have crossed and recrossed one another many times.

In all Great Britain and France combined, in 1066, there were not forty million people; probably not in all western Europe. So, if you have had forty million ancestors since the days of William the Conqueror, it is fairly certain you must be descended from him.

But before you let this glad news thrill you, stop and remember that you are also descended from the off-scourings of the London and Paris gutters. Some of our ancestors sat on thrones. Others were hanged. Some led armies. Others begged in rags. To confess descent from the worst of them is not a sweet "Thought for the Day." But it happens to be logically true.

This genealogy craze is a risky and fruitless thing. If you care to spend money enough, and have any kind of start in the way of two or three grandparents whose names you know, it is

often fairly easy for a genealogist to trace back your ancestry to almost anyone you care to name. It is a recognized business. Naturally, as the genealogist goes back, branch after branch becomes obscure or vanishes. But also, as he goes back, he is likely to strike some well-established line. Thereafter, his work is easy.

For example: suppose 800 families in England, in 1700 A. D. could claim direct descent to the Conqueror. All the genealogist has to do is to trace one of your less remote lines to one of those early families. After that, he has only to copy that family's genealogy.

A man in New England, some decades ago, had the ancestry craze so badly that he decided to trace his descent straight back to Adam. His friends laughed at him. But he had plenty of money and ingenuity, and employed expert genealogists on the seemingly impossible task.

Already he had proven his descent to a Mayflower passenger. Thence, by British church records, to a point where one of his forbears married the granddaughter of an English king. Naturally, from there he could leave the archives of village churches and go on with the established records of the State itself. This he did, until he came to a king who ruled Scotland in 850 A. D.

That gave him a long line of Scottish kings to go on with; and Irish rulers before them. Then, by aid of O'Hara's "Irish Pedigrees," he continued through a female branch of one of these lines to a Jewish ancestor who belonged to a certain tribe in Israel. This Jew's tribal family traced its descent from one of the ancients named in the chronological chapters of the Bible—which carried it back unbrokenly, through the same source, to Adam and Eve.

Now, what does the whole thing amount to? Almost everyone alive can claim direct descent from some ancient celebrity. But even if a few chosen persons only could make such claims, what advantage would they have? Said cranky old King James First of England, (who may have been an ancestor of yours), as he scribbled his

signature to a courtier's "patent of nobility":

"Any monarch can make a Nobleman. But only God can make a Gentleman."

Charlemagne was my ancestor? Very good. I shall carry on the torch of his greatness as far and as loftily as I can. Does my traceable ancestry end with a drunken wharf-rat? I think it is in my power—if I try hard enough—to rise far above my inherited defects, and to accumulate a bright mass of qualities as a good heritage to the next in line. An inherited weakness or sickness may be overcome, and in its place a tendency to ruggedness left to my grandchildren.

Theodore Roosevelt inherited a scourge of ill health. He fought against it savagely until he had built up a constitution of iron-and-whalebone—a quality that his children also have. The proudest and bravest blood of all France was led through the terrible cavalry charge at Eylau, in 1807, by a man who had begun life as a stable boy: Joachim Murat, the "ancestorless man." Napoleon's foremost marshal at the same battle was Michel Ney, the self-educated son of a village barrel maker.

It is not an impossible thing, surely, for us to try to lift the torch just an inch or two higher than did the hand which last let it fall; or at least to live up to, in some measure, the examples of goodness or greatness bequeathed to us; or to rout out some of the defects which came down to us with good traits.

This is not visionary idealism, but sound logic and simple sense. Also, it is all the practical good that any of us can hope to gain from the knowledge that we are descended from a mighty ancestor. Ancestors are fine things—but only as examples, good or bad. It is perhaps the grandest of all ambitions, to decree:

"I had no ancestors to boast of, but you can bet my descendants will have!"

"Even the far descendants, who may never happen to hear about me, are going to be better and wiser and stronger because I built up my mind and my body and my character so strongly that some of my excellences are bound to pass on to future generations!"

# The American Cowboy

Condensed from *The Mentor* (July, '27)

*Douglas Branch*

**A** LONG a street in Fort Worth, Texas, are posts bearing the commemorative legend: "This is the path of the old McCoy cattle trail."

It was the spectacle of the trail drive—the long march of cattle from the great breeding grounds of Texas to the plains and railway towns in Kansas and Nebraska—that gave the American cowboy country the individuality that demanded a literary tradition to perpetuate it. Most of his work and his trappings the American cowboy inherited from the Mexicans who had tended cattle for the *conquistadores* of old Mexico long before Americans came into the Southwest. But the long drive is purely American.

The demand of the Forty-niners for food supplies induced Texas stockmen to attempt the long drive across barren country. By 1870 the trail to the north was lined with herds, and cattle and horses grazed in large areas of the Western range.

These pioneers were bold gamblers. They took chances with Indians. On moonlit nights a cowboy camp was light-sleeping, quick-fingered, always wary. The pioneers staked their herds against swollen streams and sometimes waterless plains; they had to face the risk of helter-skelter stampedes of their cattle; and they had to meet hardships—drives all day in rain and mud, snatches of sleep on wet ground, sore, useless horses and, if there was no dry bush, days without a fire for warmth and food. The trail was not easy; it made the cowboys hard and agile in body, and hard and proud in their philosophy.

As to clothes and equipment: "You can invest \$500 very handy," advised Charlie Siringo in 1886. "A saddle with silver inlay might cost \$300, with another

\$100 for a silver-mounted bridle and spurs to match. Fifty dollars might go for a gold-mounted sombrero, another \$50 for a saddle blanket and \$25 for quirt and a lariat. A Colt '45' would cost \$50 if it were pearl-handled and gold-mounted; an ornate Winchester rifle would take \$75 more; while \$25 would buy a good cow pony."

The cowboy did not often wear a coat, but he always wore a vest—with plenty of storage room. For the eyes of his "lady-love" and for dances and celebrations the well-dressed cowboy had an extra vest, a sartorial masterpiece, plush or rough wool, solid color and plenty of it. Most cowboys wore Stetsons with crowns sometimes eight inches in height, whose brims at noonday gave shade beyond the wearer's shoulders.

Against dust, snow, sleet and wind the bandanna around the neck offered protection and the cowboy wore it always. Gloves were worn all the year—in the winter for warmth, in summer as protection against the burn of a hurtling lariat.

In early Texas days, "everybody went armed to the teeth at all hours. There was danger on all sides and from many sources." A cowboy carried a brace of revolvers and had a rifle strapped by his side.

In the great days of the trail—the 1870's and '80's—each herd numbered from 500 to 3000 cattle and was driven by 5 to 25 riders. After the spring round-ups the grass was usually ready to sustain the tramping herds and the drive began.

A round-up was a cooperative affair, to gather in all the cattle in a certain district and to mark each calf and any



cows that might have escaped previous round-ups with the brand of its home ranch. In a large district over 200 men might take part; and the outfit from each ranch brought with it a *remuda*, a herd of seven or nine extra horses for each rider. The outfit brought its "chuck wagon" too. The cook's wagon also carried the cowboy's blankets, an extra shirt, perhaps two changes of socks and a slicker.

Work began at 3:30 A.M. with the cook's "Come an' git it!" The cowboys gathered about the fire near the chuck wagon, each with a tin plate on which the cook slapped meat and bread, and a tin cup filled with black coffee, strong and unsweetened. When the second or third cup had been gulped to stimulate muscles chilled by the dawn air each cowboy roped and saddled his horse from the *remuda*.

The object of the round-up was to drive the cattle out of the outlying country into some central level spot. Next came the sorting process, the cowboys of each ranch "cutting out" the cattle of their brand, with the calves that followed their mothers. Over the branding fire one or two men worked to keep the brands hot. Expert ropers rode up, each dragging a bawling calf. A cowboy at the fire seized the calf and with a quick twist turned it on its back and secured its legs. Then the brand was pressed and the knife added such additional marks as the owner had adopted to attest his title.

After the branding came the drive to the Northern market. The herd of perhaps 3000 cattle, with its outfit of cowboys, the cook and his chuck wagon, and the horse wrangler with the *remuda*, was started northward. The cattle were "drifted" with very little pushing, grazing as they went. By nine o'clock the men urged the cattle closer together; the two riders at each side of the herd "pointed" the steers in the lead at a smart pace, and "swing riders" behind them pushed in the flanks of the herd. Just behind the cattle rode the "tail riders" to keep in the lame and the "pesky." These trail men rode in clouds of dust tossed up by the moving herd.

About noon the cattle were halted and located in a camp for grazing. The flapboard on the chuck wagon was let down and a cold lunch made ready for the trail drivers.

After the afternoon's drive, and when the cattle had been "bedded" for the night, if the cowboys were not too tired they sat about the cook's fire, rolled their cigarettes and grew fraternally loquacious. There was range lore to be told, tradition to be recalled; and there were ballads to be sung, some of them sentimental. The cowboy's gallantry toward women is a legend. Other themes were supplied by the swish of the cowboy's rope, the thud of hoofs, the "misery" of the cook's beans and apple pies. These same songs were sung by the night riders, and the herds seemed to like the music, to accept it as an assurance of protection from wolves. In the frontier towns and in the cow towns the cowboys celebrated their holidays by going over the songs they all knew.

By 1885 the encroaching of homesteaders had dotted the Chisholm Trail, the greatest of them all, with farms; and by 1895 the open lands across which cattle could be driven had been closed. Some of the old-timers followed the call of the range to the Argentine and to Canada; some became station agents and baggage smashers; many more returned to Texas for ranching.

Already a sentimental haze is overlying the great spectacle of the long trail from Texas to the cow towns of Kansas and beyond to the edge of the mountains of Montana. The old trail riders of Texas gather annually in convention, and review their trail-riding days. Each year a smaller number returns to this old-timers' "round-up." Usually someone is called on to recite from "The Old Cow Man."

When my old soul hunts range and rest,

Beyond the last divide,

Just plant me in some stretch of West

That's sunny, lone and wide.

Let cattle rub my tombstone down

And coyotes mourn their kin,

Let hawses paw and tromp the moun'—

But don't you fence it in.

# What Makes a Husband Easy to Live With?

Condensed from the Woman's Home Companion (July, '27)

## *The Testimony of Twelve Wives*

### **My Soul Is My Own**

**M**Y husband—and he's a Scotchman too—is easy to live with because he's generous. He likes detective stories; I enjoy Russian literature. He likes golf; I like the movies. He likes fishing; I like dancing. What do we both like? Each other! Never in the nine years of our married life has he attempted to impose a detective story or a golf club on me. Never has he tried to choose my friends, my clothes, my amusements. Never has he pawed over the grocery bill—liberal in everything from his ideas to his checking account.

He drops cigarette ashes in all the vases, brings guests home without forwarning and forgets our wedding anniversary, but every fault is erased by his liberality of spirit. Easy to live with because my soul and mind are my own: he may explore them but he never attempts complete ownership!

### **Freedom from Curiosity**

I have been married nearly 40 years and my husband has many qualities that make him easy to live with. But the outstanding one is his freedom from curiosity. I have a very generous allowance but am never questioned as to how I spend it or whether or not I am saving any of it. I can be out late, have unexpected callers, without tiresome explanations. It isn't that he isn't interested but he trusts me to take care of my affairs as he does his, without questions. This may seem a trifle but to me it means peace and happiness.

### **A Peaceful Husband**

My husband is easy to live with because he is not fault-finding. In the five years of our married life I do not

recall a single meal made unpleasant by disagreeable comments upon the food nor a single night's rest interrupted by useless arguments and recriminations. I am ready and willing to admit that my husband is not perfect, but who wants a perfect husband anyway? As for me, I say, "Thank God for a peaceful husband."

### **Occasional Absence**

One thing that helps to make a husband easy to live with is an occasional absence from him. It doesn't need to be for any great distance nor for any great length of time. Married couples often take too much for granted. If Jack is on a trip for a few days Mary is soon spending time each day appreciating him. And when he comes home again doesn't Mary's cooking taste good, doesn't the house look extra clean and pretty? Isn't Mary herself sweet? And as for Mary, she thinks that Jack is just *wonderful*!

### **He Covers His Tracks**

I have chosen "picking up after himself" as the best among my husband's many easy-to-live-with qualities. If there's anything that makes a tired mother desperate it's to try to teach her children to hang up their hats, put their shoes in the closet and their soiled clothes in the hamper, in the face of the living example of a husband and father who casts off clothing and all responsibility for it in the general direction of the nearest chair. Any woman will seethe with resentment if she has to follow in the tracks of a man picking up the collars, newspapers, shoes and shirts he sheds. From my heart I thank my mother-in-law, who taught her son to "cover his tracks" in the house.

### **Pleasure in Simple Things**

A sense of humor makes a husband easy to live with. I don't mean the kind that will make a man ridicule his wife before guests but a real appreciation of the humorous aspect of simple everyday things and the faculty of getting a lot of pleasure out of simple things.

### **Billy-Goat Appetites**

Husbands with billy-goat appetites are easiest to live with! Most wives find that menus have a way of becoming tasteless through many repetitions—but to have to plan for a husband to whom onions are anathema and who "doesn't care for potatoes or starchy dishes" or cabbage or carrots or—on indefinitely—then menu-planning becomes a nightmare indeed.

### **Words of Praise**

My husband never forgets that besides being a wife I am also a Feminine Person and as such love to hear that my dress was the prettiest there, that my nose never shines except in the privacy of my boudoir and that no lemon meringue pie in the world can equal my lemon meringue pie. Such honeyed words, not to say downright blarney, make my husband a mighty easy man to live with.

### **When to Be Quiet**

I so very much appreciate my husband's quiet way when I am struggling to make a train, or to get to some certain place on time. He may look at his watch and ask "Do you think you can make the 2:15 bus?" And I make it, unruffled and unflurried. Whereas should he hustle me and become impatient I lose my equilibrium and probably the bus as well.

And then again I'm thankful for his quiet help in getting the last-minute things ready for the picnic and his quiet manner of taking the responsibility of fixing windows and shades, and seeing that wraps and luggage are all together and doors locked when we are leaving home for a vacation.

I think an understanding husband and the one who knows the times when it helps most to be quiet is an easy man to live with.

### **Martin the Approachable**

Martin, my husband, has a close friend, John, married to Kate. Kate said to me the other day, "I wish you'd ask Martin how John feels about us all going camping together."

Ask Martin? Why not ask John direct? I did not put this question to Kate. I was afraid of probing a tender spot. But in my heart I sang paeans of praise of Martin the approachable, the responsive.

Here I had been blissfully ignorant of a remarkable quality that makes life with Martin as comfortable as an old shoe. Anything from dollars to doughnuts I can broach. No reticence, no explosion; just response, fair and frank. We can disagree with zest but somehow no debris from the past encounter clutters up the future approach.

### **He Argues With Me**

Bless my husband—he argues with me! Now no girl, unless raised in a family where all female opinions were ignored completely or indulgently overriden, could appreciate the joy of having a husband who considers one's opinions worthy of refutation. Dick will listen attentively to my reasons why the mountains are the only sensible place to spend the summer vacation, and then ever so courteously he begins to pick my logic apart, to show me, with infinite patience, meticulous care and flattering seriousness, where I'm wrong. My, but it's easy to live with a man who takes the trouble to argue matters out with one!

### **Something to Say**

Well, a gift of gab helps a lot. What a difference it makes to a wife who often has been in the house all day occupied with a round of seemingly petty and certainly irritating duties to have her husband come home with something to say—interesting news or trifling gossip, thoughts, impressions, anything at all but that stony wall of silence that makes one want to scream, "Talk, talk, for heaven's sake talk."

We often hear of the wife who talks too much but don't forget to be sorry for the wife of the husband who talks too little.

## Young America in Revolution

Condensed from *The World's Work* (July, '27)

*Montaville Flowers*

WHEN addressing 92 high schools from Boston to Los Angeles upon the subject: "What Are You Going to Be?" and asking how many would enter the different vocations, I found that whenever and wherever I asked how many had chosen to be farmers, ministers, or politicians, the questions were greeted with great laughter and turning of heads to see who might raise a hand. Although I asked 40 questions, this effect was produced by these three only. The farmer feeds and clothes the body, the preacher administers to the spirit, the politician determines the government. From 1776 to 1876, and after, these three vocations were the outstanding recipients of public respect, the goals of youthful ambition; by them the republic developed into greatness. Now, young America considers these vocations a joke. This is revolution.

What is behind these laughs? Their genesis is not in these youth; they but voice their naive comment upon what their elders do and think; they are the true mirror of the time. What have homes, schools, churches, the press, and the public been doing to make these boys and girls so reproduce the sum of their impressions?

The presumption is that parents send their children to these schools to prepare for life work, yet 60 percent of 54,410 students interviewed, report that they have never had a serious talk with their parents on that subject. If parents say this cannot be true, that you have talked with your children but they have forgotten it, then you admit that your counsel is so infrequent, so weak, or so indecisive that it makes no impression, and the practical result is the same.

In answer to the question, "Of you who have talked with your parents, how many have parents who have advised

you *not* to follow their own vocation?" there were 93 percent who had been so advised. Americans once loved work, real work. They found pride in the number of cords of wood cut in a day, the number of acres of grass or grain laid to the ground. We have arrived at a generation of parents who are advising their children to seek an easier life than their own. Organized life, society, is highly organized work. Ease has no place in the true aims of life except as the reward of fruitful toil at its close. Ease in youth is the mother of degeneracy. Yet the essays of the school children reflect the prevailing sentiment in hundreds of statements like this: I will not be a teacher, farmer, engineer, book-keeper, doctor, lawyer, and so on, because the work is too hard; and conversely: I expect to be a vocalist, a dancer, vaudeville artist, composer, architect, stenographer, because the work is easy and the hours are short.

Somebody must do the hard work, build the sewers, dig the coal, stand over the lathes and hot furnaces. If day laborers, mechanics, and railway engineers are advising their children to seek an easier life as merchants, bankers, and doctors; and if merchants, bankers, and doctors are advising their children to seek an easier life, how can these children look upon the more arduous and menial labor as anything less than social disgrace, an attitude out of which may readily grow the desire to import those who are to do this work from lower standard countries and other races? That is social revolution, the road back to caste, serfdom, peonage, and slavery.

The question, "How many of you have chosen farming as your life work?" invariably "brought down the house." This laughter might have been expected in the schools of great cities, but it was universal.—It came in answer to that

question as surely and sharply as the echo follows the shot of a gun. If that laugh and what is back of it continue, the exodus from the farm has just begun. Here are typical instances:

1. Pocomoke, Md., a town of 3000, is wholly an agricultural town, surrounded with magnificent, level farm land. The high school has 200 pupils; 73 said they were born or reared on farms, and 125 of them had parents reared on the farm. How many had chosen farming for a life work? Three, only three.

2. Worthington, Ohio, has an agricultural high school with a department organized under the Smith-Hughes Law. The pupils reported that 70 of them were born or reared in the country and that 120 of them had parents born or reared on the farm. There were 28 enrolled in the agricultural course. Yet not one boy in the entire school would admit that he intended to become a farmer.

3. In Boston the Jamaica School has an agricultural department established as a part of the effort of Massachusetts to turn attention to the agricultural recovery of the state. The assembly numbered 500, of whom 48 came from the country and 140 had parents that had come from farms. Here three boys held up their hands as having chosen a farm career.

4. In Lexington, Ky., the "Heart of the Blue-grass," pride in the ownership of land has been not less than pride in pedigrees of blue-blooded horses, world famous. If there is any place the farm might allure and the farmer's social position go unassailed, here it is. In the senior high, 460 out of 590 pupils have parents once connected with farms, and 210 pupils were reared on the farm. "How many of you have chosen any kind of farming or agriculture as your life work?" Answer, a laugh—four hands raised.

5. Kansas offers a perfect illustration of the sentiment of an agricultural state. There are no finer senior high schools in America than those in Topeka, Wichita, and Hutchinson, and the boys and girls in them represent the original Americans in stock. Taking the totals of these three cities, we have a high school

enrollment of 4715, of which 4350 gave answers to the questions; there were 3120 with one or both parents of rural origin, 1460 students of the same origin, and a total of 12 intending to be farmers. We may conclude that the more the high school youth know about farming, the less they propose to become farmers.

The tide flows fast from the farms of Kansas. Between March 1, 1925, and March 1, 1926, there were 40,000 who left the farms of Kansas and moved to town.

The ratio in the high schools of Kansas is maintained in all the 14 states in which, out of 54,410 students recorded, a grand total of only 153 said they would be farmers; 21,153 said they had parents from the country, 8183 were from the country. Thus in one generation the curve toboggans from 40 percent to 15 percent to one third of 1 percent. Will America be wise enough to change the conditions which produce this youthful attitude and maintain our agricultural population what up to now it has been, a mighty source of the power and glory of Americanism?

For what in the minds of these youth produces the laughs at farmers and farming? A whole history. The causes which these boys and girls have written down in essays are both economic and social. Economically, the farm fails to yield sufficient profit to meet the costs of present-day living, fails to enable farmers to have, to do, and to be what is possible to their city neighbors and friends in other vocations. The utter hopelessness of the farmer's outlook has been so thoroughly advertised that everybody knows it, and apparently nobody cares. Why then should his children be farmers?

The farmer and his boys and girls have been laughed out of social standing, they know it and are tired of it. "He is a farmer," an epithet hurled at him in school and in society, banishes him from the company of his equals. He has been cartooned, burlesqued in play and moving picture, ridiculed in joke and story, and his sons and daughters will not stand for it. And these children of the country who have made up their minds to turn their backs upon the farm, now join in the general "Ha! Ha!" of young America in revolution.



# The Day After Tomorrow

Condensed from Hearst's International-Cosmopolitan (July, '27)

*Sir Philip Gibbs*

**D**URING the past 100 years human life over great areas of the world's surface has been changed more radically in its social habits than in 6000 years, perhaps, of previous history.

Now it rather looks as though during the next 50 years or less there are going to be even greater changes—more startling—and in this article and others I am going to suggest some of the things that may happen.

It is no longer the philosopher and idealist, still less the statesman and politician, who are responsible for the great social changes in the world. It is the chemist and engineer who have changed the conditions of life for the individual man by putting new power into his hands.

One little man—Henry Ford—has in his own lifetime, by means of his own organization of labor, added to the world nearly 300 million mobile horse-power, or about 97 times the potential horse-power of Niagara Falls. The whole world uses only 23 million stationary horse-power, of which the United States uses more than nine million.

Has it added to human happiness? Henry Ford thinks so. "Go to the laborer in the street-car," he says. "He will tell you that just a few years ago he came home so tired that he had no time to change his clothes—just got his supper and went to bed. Now he changes his clothes at the shop, goes home by daylight and takes the family out for a drive. He will tell you that the killing pressure has let up. A man may have to be a little more businesslike on the job than formerly, but the old, endless, exhausting drive has 'quit'."

Consider the advance in the speed of communication. Air lines are linking up

all great European cities with services as punctual as trains. Every year, every week almost, establishes a new record of long flight and fast flight. Already in Australia life is being changed for settlers who live solitary lives cut off by great distances from other communities. Now letters, packages and friends are brought to them by air. The commercial air pilots have already moved the hands of the clock forward at least 100 years for the bush dwellers of Australia. In Queensland, where single individuals own cattle runs larger than England, ranchers are beginning to use airplanes to inspect their herds. The regular Queensland service has flown over 4,000,000 miles without so much as scratching the finger of a passenger, pilot or mechanic. One pilot has flown for ten years over rough country without a crash. All this gives a hint of the development that will take place very soon in countries of great distances like Australia and Africa, while every country in Europe is intensifying its aerial activity.

Still we are only at the dawn of the air age. The full meaning of this new era in human life will only become manifest to the ordinary man when he also takes to the air as now he gets into a motor-car. In London one can now buy a Moth airplane for about \$3500. Its wings fold back so that it can be put into a small garage. It needs only a small landing space. There are eight airdromes in which one can learn to fly it. In March of this year a boy of 15 and a man of 65 qualified as pilots of the Moth after a short period of tuition. When such a machine as that is sold at \$700, and when the risk of flight is not quite so great to the beginner, the sky will be crowded with butterflies as well as moths, and the flappers of the future

will spread their wings to do a morning's shopping.

When that happens, perhaps within 25 years, the motor-car will be obsolete because the airplane will run along the ground as well as fly over it. It will relieve the pressure of road transport. It will make a mockery of national frontiers. It will alter the architecture of cities, which will have landing places on their roofs and airdromes at their centers of activity. Every thickly congested country will distribute its human life over wider areas instead of crowding its masses into great cities. The business man will be able to live 100 miles from his office and get to his job as quickly as now by the tube train from an outer suburb.

Air transport will lead to important alterations in the relations between peoples. Can we keep up the old customs barrier, even the sense of separate nationality, the mental frontiers, and dividing ambitions and hatreds, when the sky is free and we are alighting in each other's back yards? Will it not unify larger areas of the world at least as far as free industrial exchange, freedom of intercourse, general laws, some common language, and cooperation in producing and distributing the necessities of life?

There is, of course, an unpleasant alternative. It may be that the dawn of the air age will be the beginning of the end of our civilization. Because if war happens again between nations who have taken to the air, the business man instead of going to his office will go to some hole in the ground.

It depends on man himself, and that is no great security in his present state of mental and moral quality. He is not advancing intellectually and morally at the pace of the power which the scientists are putting into his hands.

More power is coming to him. Scientists are already on the track of in-

exhaustible supplies of energy. The sun's energy is stored up in the very atoms which go to make up what men call matter. That is a new revelation which is going to have incalculable results. It was the discovery of radium by Madame Curie which set all the scientists searching for some means of liberating and harnessing that inexhaustible supply of energy which is revealed by radio-activity.

Says Professor Soddy: "The very existence of radium, a substance which gives off spontaneously powerful new radiations which can be transformed into light and heat, runs counter to every principle of physical science. For whence comes the energy that is given out in the process? Radium gives off energy sufficient to heat a quantity of water equal to the weight of the radium from the freezing-point to the boiling point every three-quarters of an hour

Radium, weight for weight, gives out as much heat as the very best fuel every three days, and in the 15 years since it was first isolated, a quantity of energy nearly 2000 times as much as is obtainable from fuel has been given out by the radium and the supply as yet shows no sign of exhaustion."

Radium heat, we are told, is a third of a million times as great as the same amount of coal combustion. There is an unceasing supply of this energy in the matter that lies around us. If the scientists can get hold of it, liberate and utilize that atomic force—some of them think they are getting close to the secret—mankind will be put into possession of power so illimitable that all previous forms of energy such as coal and oil and water will become negligible and man himself will be the master of the very source and origin of power. Meanwhile, not a year passes without some new method of replacing or intensifying present forms of energy being tried out by the scientists. (*To be continued*)

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# A New Ford!

Condensed from The Review of Reviews (July, '27)

*J. George Frederick*

THE old Ford is dead. Model T, which has survived with only minor changes since 1908, is no more. Beginning August 1 there will be a new and better Ford. It will be lower and longer than the present one; it will have a streamline body and more dashing radiator and hood. It will be fitted with balloon tires, and probably with four-wheel brakes. It will boast new oil, ignition and water-pump systems. Most drastic of all, it will have a new gear shift, the customary three speeds forward and reverse. In short it will not be a Ford, but an automobile.

It is more than an admission that competitors have at last killed the old Model T. It is a crisis in automobile history. Until 1926 Henry Ford was the hub around which the industry revolved. But now forces beyond his control have left him merely one of the spokes. Will his new car put him in the center of things once more?

He first gained that position by winning for himself a price monopoly. He sold his Model T so much more cheaply than other cars that for most families it was a question of buying a Ford or having no automobile. When Model T was introduced in 1908 the price was \$950. Ford kept his price monopoly by successive reductions, until in 1916 his car cost only \$360. The after-war rise took it to \$575, but it came down again to \$290 in 1924-25. Adding a self-starter and demountable rims, he raised it to \$360 once more, where it stayed.

But price no longer mattered. In the first place, incomes had gone up, so that automobile buyers had 44 percent more

"real" purchasing power. Measured in dollars instead of comparative purchasing power, the increase was more than 100 percent. To help matters along, large-scale automobile production had so reduced automobile prices that a dollar spent on a car in 1926 was worth \$1.13 by the standards of 1913. On top of that came installment selling, which tapped an enormous new class of buyers.

All in all, Ford's price monopoly became a picked bone. For comparatively little more than Ford asked, the public could buy any one of half a dozen low-priced cars, considerably more attractive in appearance and comfort.

This was two or more years ago, but Ford's mind would not stir. He stuck to his Model T until the decline in business became startling. He sold only a million and a half cars in 1926—about a fifth less than the year before—whereas the General Motors Corporation sold twice as many as in 1924. This company sold 827,000 cars in 1925, and 1,215,826 in 1926. During the first half of 1927 General Motors has more than maintained its striking pace and will show a 40 percent increase over 1926. No less than 379,330 Chevrolets were sold in the first four months of this year, as against 233,902 in 1926. Most significant of all, the day came, this last spring, when more Chevrolets than Fords were made; for Ford sales continued to dwindle.

The average man does not know what it means to retool a huge plant to make an altogether different model in great quantity. Ford costs are based on many years of development of fractional ad-

justments, special machinery, carefully worked out relationships with other plants. Obviously, it will take years to synchronize the new organization and develop the efficiency which made the Model T price possible. Ford must now do in a hurry what his winning competitors have taken years to achieve.

Some idea of the great cost of making over Ford plants may be gained from the fact that one automatic machine, which makes but one small part of Model T, cost \$100,000. Many hundred such expensive machines must now be made and installed; a myriad of changes must be made in schedule, and workmen must be retrained. Reshaping the Ford plants will probably cost 50 or 75 million dollars in the coming year, and perhaps more after, as production gains headway. Still, Ford is a master technician, and may be expected to perform engineering miracles in this transformation process; miracles of economy in both money and time.

It is not manufacture, but selling, that will be Ford's Waterloo. The new Ford will be either an ineffective gesture, or the beginning of a new era in automobile manufacturing. There are skeptics who doubt that Ford can win with a model which more or less duplicates what others are offering. Others maintain that he can be relied upon again to lead automobile selling into a new era.

He has changed his mind about advertising, which he called an economic waste some months ago. The General Motors advertising appropriation for 1927 is 50 million dollars, ten million of which is for Chevrolet alone. Ford has started work on advertising the new model.

If the new model sells in large quantities, one thing is certain: one earmark of the era it will usher in will be a still stronger tendency to consolidate automobile companies. Only giants can compete with giants. Even in 1923 six companies made 85 percent of the cars, leaving only 15 percent for the other 94 manufacturers. Today the number of manufacturers has been cut almost in half. Consolidation is now made even more certain because of the tendency toward complete "coverage"—the mak-

ing of all types and classes of cars by one maker. It results from the dealer's necessity for having a wide variety of cars with which to tempt the public. Because of the struggle to find new buyers of cars, this policy has loomed strategic; and Ford in particular has felt his dealer organization crumbling on this account.

Since Ford is almost certain to try to regain his price monopoly after the cost of changing his plants has been made good, another change his new model promises to bring is a spectacular effort to motorize America as never before; an effort to make two and three-car ownership more universal; and a corresponding push for more and more light motor trucks and buses. This will have powerful repercussions on city planning, on roads and on rural and semi-urban trade. Moreover, it will lead quickly to determined efforts to motorize the rest of the world; and because of the equally determined tariff walls in European countries, the smaller and more backward nations in other parts of the world will be motorized most rapidly, with important economic changes there as an inevitable result. South America is already spending large sums on roads.

What matters most of all is that the new Ford will make automobiles greater bargains than ever. Already this year prices have gone downward, while quality has mounted upward. Beautifully upholstered sedans and coaches of 1927 can be had from \$700 to \$1000—less than the plain touring models of 1920. More than 700 parts of American cars are interchangeable, because of a cross-licensing patent agreement.

The high technical excellence of automobiles is a great object lesson for other manufacturers. In a sense the automobile industry is a vast crucible in which American industry is being studied under greater heat and pressure than any other industry has ever known. Thus it becomes a laboratory enterprise from which all industry, American, and foreign, can learn.

The new Ford is simply a high-temperature test upon the automobile industry. Will the industry—or Ford—crack under the strain?

## "Those Absurd Missionaries"

Condensed from Scribner's (July, '27)

Harrison Collins

"O H, mother, aren't they funny!"  
From where I stood on the promenade-deck, I could see the little old couple—both over 60, the wife perhaps a trifle the younger. Her hat was a flat conglomeration of black and white satin bows; around her shoulders was a sort of overall green cape. The husband wore an ancient blue serge suit and tugged at a large wicker suitcase.

"Mother," repeated the little girl, "aren't they funny!"

"They're missionaries, Clara," said her overdressed mother contemptuously. "China missionaries."

Next morning at breakfast I noticed that their table was nearest the exit to the kitchens. By chance I happened to be behind little Clara when, in passing their table, she dropped her orange. Old Mrs. Missionary retrieved it for her, and handed it back with a "good morning, dear," in a surprisingly rich contralto voice. Just then Clara's mother, pausing in a conversation with the captain, caught the end of the little scene.

"Clara, come here!" she called sharply. And with scarcely any attempt to lower her voice: "You stay away from those missionary people."

Their name, I soon discovered, was Scott, and they were returning to their work on the Japanese island of Kyushu. They said little of themselves, but I found them easy to talk to. This was a pleasure. I make the crossing annually for a silk house, and the voyage lacks novelty.

By the time we reached Honolulu, Clara's mother, whose name, I had heard, was Cummings, and whose state was a grass widow's, was being trailed by half a dozen male admirers.

The Scotts constituted the voyage's standing joke. Everything they did was stupid, clumsy, *gauche*. But before we

were long out of Honolulu tongues began to wag of delinquencies in another quarter. The fair widow, it was said, had come back to the ship, alone with Sam Oates, at 3 a. m., and Sam had said he had put her through her paces, all right.

The morning we steamed up Yokohama harbor nearly everyone was on deck. Mrs. Cummings was not in evidence, and it was rumored that neglected little Clara, who had been slightly ill for the past three days, was worse. Suddenly Mrs. Cummings appeared, tears streaming furrows in her facepowder, lips twitching under the rouge.

"What's the matter?" issued solicitously from a dozen masculine throats.

"Clara—oh, my baby! Clara's got acute appendicitis!"

"Can't they operate?"

"Isn't there anything we can do?" asked a sweet contralto voice.

The frantic mother whipped about, fury dancing in her eyes:

"No, you old comic strip, there's not! Clara'd likely as not be all right now, if you had let her alone in the first place! Prob'ly either you or Foxy Grandpa there slipped her something. Oh-h-h DAMN missionaries!"

I saw the gentle, upturned face wince, as from a physical blow, and the color mount slowly to the thin cheeks and forehead. As she turned away, some fool in the crowd tittered.

"I say it again!" screamed Mrs. Cummings, losing all control and stamping her foot. "You're a silly old fool, and DAMN missionaries!"

The doctor had come on deck. "It isn't appendicitis," he said, "as I tried to tell this featherhead who seems to be laboring under secondary dementia.

But it's a serious surgical case, which should be treated ashore, and at once."

The quarantine launch was momentarily expected, and finally sighted picking its way through the shipping. Rounding the breakwater, it came snappily toward us. A smart young official danced up the companion and saluting our officer politely, spoke to him in loud and excellent English:

"Are the Reverend and Mrs. Cyrus Scott of Kyushu here?"

Little Mr. and Mrs. Scott stepped shyly forward. The young fellow produced a large, important-looking envelope from his belt, and, offering it to the old couple, bowed from the waist, respectfully low. When he spoke again, it was like a child addressing revered parents:

"Sensei, His Excellency the Governor, learning of your probable return by this steamer, has sent me to bid you a hearty welcome, and to place his launch at your service. His only regret is that urgent business prevents his coming to care for you himself."

Mr. Scott, also bowing from the waist, thanked the young official in quiet, but I have no doubt adequate, Japanese.

As to the rest of us—their hitherto supercilious fellow passengers—you could have bowled us over with a word. Where was the joke now? What mattered clothes and snobbery? We, longing to get ashore, and here were poor, old unappreciative Mr. and Mrs. Scott invited guests.

I noticed a younger missionary, leaning on the rail, chuckling to himself.

"Now tell me," I said "Who are they?"

"I've told you before: the salt of the earth."

"But this reception!"

"Oh, that's nothing. Half the people on the pier are waiting for them. And they will turn out the schools to welcome them when they cross the boundary of their own province! They are the Scotts, man, the Scotts, of Kyushu. Forty years ago they went into a village on the island—a real wilderness then. They built a church, and later a hospital, and a school—after all only externals.

Their special gift was for supreme friendship. Their hearts knew no guile, something, by the way, simple folk everywhere are quick to recognize. They knew no such word as 'converts'—only friends, and in time, as the seed sprouted, brethren in Christ. Somehow, something of their own lofty soul entered into those they reached; and now in high places and low their influence is living in this empire. The Governor of the Prefecture is not only their old pupil, but also their very loving boy.

"They are absolutely devoted to the people. They give away everything—themselves included. You have noticed that Mrs. Scott is not well. She is dying of cancer. The doctors give her three or four years at most. She well knows that this ship is her final direct contact with America. But come, here they are now; let's watch them leave."

Out of the doorway came a tiny stretcher on which Clara lay hidden from our gaze under white sheets. Immediately behind followed her mother, heavily veiled, leaning on Mrs. Scott's frail arm. Mr. Scott, laden with impedimenta belonging to both ladies, closed the little procession.

It was the decent—the Christian—thing to do, of course, to offer of their bounty to those who needed it most. But many, remembering the vulgar rebuff, would not have recognized the obligation, or else would have shared it condescendingly. Not so the Scotts. As the gentle-eyed elder woman led the weeping younger one to the companionway, they looked for all the world like mother and daughter; or if one saw but the clothes, like servant and mistress.

So the stretcher, borne by two sturdy sailors, descended the companionway and disappeared within the cabin of the shiny launch; the little old sensei and his wife, who, in their hour of triumph, had remembered that they had come not to be ministered unto but to minister, followed; while the rest of us stared in awed silence at the simple, strange scene.

And as the launch shot away I laughed. I could not help it. For they were funny, these missionaries; at least the Scott kind were: as funny as a bracing wind at sea, as funny as the sun at dawn!



# The Oyster You Eat

Condensed from The Scientific Monthly (July, '27)

*Herbert F. Prytherch, U. S. Bureau of Fisheries*

**A**S you partake of an oyster stew or six delicious bluepoints, it may interest you to know how this shellfish has been produced.

The oyster industry of the United States constitutes its most valuable fishery, yielding annually about 73,000 tons of food, valued at over \$14,000,000 as it is taken from the water. The oyster fishery is conducted in every seacoast state from Cape Cod to the Rio Grande and from Puget Sound to San Francisco.

Oysters do not grow in the open sea, but in harbors, bays or river mouths which are made brackish by the drainage of fresh water from the land. In such places the mixture of fresh and salt water furnishes the conditions which are necessary.

The natural oyster beds represent a great national resource, but like most of our natural resources they have become sadly depleted. Hence today, half of the oysters produced in this country come from privately owned and operated artificial beds.

The oyster lends itself readily to cultivation, first, because it is unable to move of its own volition from the beds on which it is placed; second, because it can withstand rough handling and long exposure to the air; and third, because of its unusual life history, which makes possible unique methods for increasing its production.

Oysters spawn during the summer months, a single female producing from

10 to 60 million eggs which, after fertilization by the elements from the male oyster develop into oyster "larvae". These larvae, microscopic in size, swim about in the water or lie on the bottom for about two weeks, after which they cement themselves to some clean hard surface. These tiny oysters when "set" on an old shell or rock appear as small dark specks. Over 1000 have been found on a single square inch of shell. Man has taken advantage of this interesting attachment by placing old shells in the water to which the oyster larvae readily attach themselves, and thereby he is able to collect and save vast numbers that would otherwise be lost.

The oyster farmer operates along the following lines:

The grounds are carefully cleaned by dredging from them old shells, debris and natural enemies of the oyster, such as starfish, conchs and drills. On part of the grounds adult oysters are planted to serve as a spawning bed. In the early summer from 500 to 1000 bushels of old oyster shells per acre are planted on the grounds in the vicinity of the spawning beds. The beds are then left undisturbed for the remainder of the summer.

If there is no danger of this new crop being buried or washed ashore by the fall and winter storms, they are left there until spring, at which time they are transplanted to the growing grounds. The growing grounds are generally located in deeper water and are known to be areas unfavorable for oyster reproduction so that oysters placed there

are not covered and overcrowded by successive generations. On these grounds the seed oysters are given ample room for growth and reach marketable size in from two to five years, according to the locality.

The oyster farmer has learned that still other areas are excellent for fattening oysters. From six months to two years previous to the time of marketing, the oysters are placed on these fattening areas, where with clean water and an abundance of food they become fat, tender and rich in vitamins.

The oyster in feeding opens its shell, creates a current of water through the gills, and filters from the water passing through thousands of minute plants called diatoms, which are its principal food. By means of a new apparatus, the Bureau of Fisheries has measured accurately the amount of water which the oyster drinks. The District of Columbia used 65 million gallons of water daily, yet this amount would be consumed in the same period by the population of an oyster bed only one-tenth the size of the White House grounds.

The chief method employed in taking the oysters from the beds is the use of a dredge which is dragged over the bottom. Each gasoline- or steam-driven boat usually operates from two to four dredges, with which it is capable of gathering from one to five thousand bushels of oysters per day.

The oyster farmer assumes many hazards. In northern waters, with unfavorable weather conditions, he often fails to obtain a crop of oysters on the material he had planted; while in the South Atlantic and Gulf waters the crop is often so heavy that the oysters are overcrowded, poorly shaped, and suffer from lack of food. They are never safe from their natural enemies, one of the worst of which is the common starfish, which wraps its arms about the oyster, pulls the shells apart and, by turning its stomach inside-out, absorbs the oyster as it lies within the shell. The planter fights the starfish by dragging over the beds large mops of rope yarn. The starfish become entangled in the threads and are drawn up and killed.

The ~~drill~~ drill, or borer, a little marine snail, is another destructive enemy, which, using its tongue like a rasp, bores a hole through the shell and licks the delicious meat within. In southern waters schools of drumfish invade the beds and feed on the oysters by grinding them to fragments between their powerful teeth. Flood waters from the land and storms rolling in from the sea take a heavy toll, either killing the oysters by subjecting them to fresh water for prolonged periods, or burying them in the bottom by powerful wave action.

In spite of the extensive development of oyster culture, these factors have brought about a constant depletion of the oyster beds. Two methods have been developed for increasing the production of seed oysters, since the decrease of these has been one of the principal causes of the decline of the industry.

One method consists in the use of brush for collecting the seed oysters. A short time before the oysters spawn branches from four to eight feet long are forced into the bottom. The following spring the branches are either transplanted to growing grounds, or the oysters are detached from them and planted singly. There are many advantages in using brush, chief of which are that it utilizes soft mud bottoms and that in a year it will disintegrate or be destroyed by shipworms, so that the seed oysters attached to it break apart as single individuals. The method of using brush is practiced in Europe.

An entirely new method for the production of seed oysters consists in planting crates near the spawning beds filled with shells for collecting the oyster seed. The advantages are: that eight or ten times more seed oysters can be produced on a given area than by the ordinary methods of shell planting and that they can be placed on barren mud flats and sand bottoms or directly over the spawning beds, thereby obtaining the maximum use of the limited inshore areas.

It will be seen that the oyster farmer, like the agriculturist, can control increase and protect his crop by the application of scientific methods.

# How NOT to Have Cancer

Condensed from Good Health (June, '27)

*Sir W. Arbuthnot Lane, Bart., (See note on inside back cover)*

ONE and perhaps two of every five Americans over 40 years of age are doomed to die of cancer unless they do something to prevent it. Cancer is the great human menace, and it is increasing by leaps and bounds.

I shall not die of cancer. I am taking measures to prevent it. What I am doing anybody can do. What I am doing everybody should do if he would avoid the risk of death from a disease more terrible than tuberculosis, syphilis and a number of other awful diseases rolled into one.

Civilization has made cancer. What it has made it can destroy. We can be as free from cancer as are savages to whom the disease is apparently nearly, if not quite, unknown. Savages become cancerous only when they come within the influence of civilization and wrong their bodies as we wrong ours.

A great flood of light has come upon cancer. We now know what causes it. It is not the bacillus that scientists have so long sought and not found. It is caused by poisons created in our bodies by the food we eat. I am speaking now, of course, in a general way. A few cancers are caused by bruises, but it is a question if bruises would ever cause cancer if poisons had not first done their work to the tissue.

What causes poisons to accumulate in the body? Bad drainage. Nothing else. The body was never intended to be a traveling receptacle of perishable commodities, the waste products of which should be carried about for 24 hours or more at a time. We were never built to bear the strain, and we are not bearing it. We are breaking under it. We are breaking out with cancer and a large number of other diseases all of which

have the same origin. There is but one cause of disease and that cause is poison.

We eat three times a day and sometimes more. Our bodies should be cleared as often as we eat. Animals do not need to be told this. Savages do not need to be told this. But we need to be told. We eat frequently, expel infrequently, and poisons are produced by putrefaction. These poisons enter the blood stream. Every part of the body is reached. Every part of the body suffers. The body resists. It tries to create antidotes to the poisons. The body fights back and dies hard—but it dies. It does not die the day the poison is introduced. It makes a losing fight for years. But eventually the break comes.

There is no way to account for what civilized human beings do to themselves except to realize the fact that they do not know what they are doing. We take disease for granted. We assume that it is the inescapable fate of man. Nothing could be further from the truth. The nature of man is to die as a clock stops—when it is run down. Death should come peacefully, at great age, and usually during sleep. Disease of any kind is certain proof that the body has been misused.

We are indicted by our ailments. Most of our ills we create for ourselves. Anybody can see that the house in which his cells live is drained. Whoever does not see to this invites all of the death and destruction that may come to him, because bad drainage in the human body is the cause of cancer and most of the other ills that afflict mankind. Remove this cause and we shall have destroyed most of the diseases.

Why does the body not adequately drain itself? The body was made all

right. The matter lies with us. We have suddenly changed our methods of living. We call this change civilization. For a very long time, we were physically active. We did everything, perhaps, except to sit at desks, ride in motor cars, and eat white bread and other bad food. We hunted, we cleared forests, we attended flocks. Such activity and such food caused good drainage.

Part of our trouble is that we shun bulk. We eat concentrated foods. Concentrated foods decay and create poisons that are difficult to eliminate, and are therefore carried around and absorbed. We eat white bread that contains but part of the grain. White bread is so bad that if fed exclusively to animals for a month they will die. It does not contain the food elements that we require, and it tends to clog the system. It is not fit to eat.

We shall never begin at the beginning, in our fight against cancer, and eat the food of some of the lowly peoples of Asia, but we may as well know what it is. It begins with bread made from coarse flour ground between two stones by hand. With this bread are eaten raw vegetables. Your Asiatic gets his vitamins, which are so necessary to life and health, while they are in good condition. We destroy ours with heat. We think we need meat. An Asiatic can march all day on vegetables and fight at evening. We should never eat any food that, when decayed, has an odor that is exceedingly offensive. All animal products come under this ban.

But one of the most difficult things in the world is to change the food of a nation. Each person must say for himself how far he is willing to go to avoid cancer. Having done the best we can to avoid bad foods and to get good ones, there still remains the problem of elimination—of sure, adequate drainage. Exercise helps. Walk two or three hours a day. How many will do it? Not many. The problem of bad drainage remains.

I determined to try mechanical means. I finally hit upon paraffin oil, a by-product of petroleum. It is known under some 50 different trade names and sold at many times the price of the basic article. Its most common general term

is "mineral oil." It is practically without color, taste or odor. In buying it, one should be sure that the label states that it is for internal use.

So far as elimination is concerned, paraffin oil will do everything that proper food and proper exercise will do. It is mechanically perfect. It lubricates without being absorbed. It has no effect upon the body except as a lubricant. Two tablespoonfuls of it should be taken half an hour before each meal, so as to give it time to pass out of the stomach before the arrival of food. If paraffin oil were to be smeared over food it would interfere with the operation of the gastric juices and probably do more harm than good.

Three doses of paraffin oil a day will insure perfect drainage of the body. It should be drained three times a day. Once is not enough. We should take out as often as we put in.

Cancer is a filth disease. It is the last stage in a sequence of ailments brought about by bad drainage of the system. I am certain cancer never attacks a healthy organ. Tissue must first be weakened by poison before it will yield to this or any other malady. Drain the body and there need be no fear of cancer, appendicitis, diabetes, neuritis, neuralgia, sleeplessness, and a great number of other ailments.

There is so much proof that savage peoples have neither cancer nor any of the other diseases of civilization, and that their dietary habits are the cause of their immunity, that one might fill a book with it. The world, in its search for the cause and cure of cancer has been on the wrong track. The answer has been within ourselves all the time. Drain the body of its poisons, feed it properly, and the miracle is done.

Cancer can be prevented, as can all other diseases that arise from the same cause. On these statements I am willing to stake whatever reputation I may have. Nobody need have cancer who is willing to take the trouble to avoid it. And he will feel better and enjoy life more all the time that he is taking the trouble. Incidentally, he will live longer.

# How Towns Got Their Names

Condensed from the American Motorist (June, '27)

William C. O'Brien

**T**HERE is no part of the world where nomenclature is so rich, poetical, humorous and picturesque as the United States of America. All times, races, and languages have brought their contribution. *Pekin* is in the same state as *Euclid*, with *Bellefontaine* and with *Sandusky*. And if a new *Homer* shall arise from the western continent his verse shall be enriched, his pages sing spontaneously with the names of states and cities that would strike the fancy in a business circular."—Robert Louis Stevenson.

Small wonder that its nomenclature fired the imagination of Robert Louis Stevenson. Every phase of man's existence, from his very anatomy to his eternal destiny, is represented by the name of some town in the United States. Astronomy, chemistry, history, mythology, every subject has been referred to.

The culture of its founders is often reflected by a name. You find little communities in the mountains of Kentucky and Tennessee known as *Charlie*, *Ossie*, *Mazie*; or *Bee*, *Get*, *U Bet*. In New York State is a prevalence of classical names, which include 28 such as *Aristotle*, *Cicero*, *Troy*, *Ithaca*.

Nationality left its imprint, the Dutch in eastern New York, the French in Louisiana, the Germans in Pennsylvania, and the Spanish in Florida and California. Catholicism gave us *Santas* and *Saints*, and the Puritans and Quakers are represented by the *Luthers*, *Calvins*, and *Wesleys* found here and there. A typical example is *Bethlehem*, Pa., which was named Christmas Eve, 1741, for the birthplace of Christ in Judea.

In 1898, after the battle of Manila, 13 towns were named *Dewey*, and after the Cuban campaign 16 *Roosevelts* were announced. Besides the capital city of the nation, there are 27 other Washing-

tons. There are 25 *Lincolns*, 13 *Grants*, an equal number of *Garfields*, and many additional combinations including the words.

Often, while towns remain, the men have been forgotten. Ironically, the memory of King James II of England, better forgotten, is perpetuated in the name of New York, our greatest city, named for him when he was Duke of York. *Jamestown*, Va., was likewise dedicated to him. *Fort Duquesne*, taken from the French by the British, was renamed in honor of England's Prime Minister, William Pitt, the original spelling being *Pittsborough*. *Wilkes-Barre* is a combination of the names of two other Britons who were sincere friends of the colonists.

The 150 "burgs" or "bergs" in Pennsylvania reflect the large German element among the settlers of this part of the country. Toward the west this type of name becomes far less common.

The usually conventional postal authorities occasionally have exhibited a sense of humor. Prosperity, in Pennsylvania, was so named by the postal authorities from the glowing account of the prosperity of the village furnished by those who wished to see a post office established there. *Eighty-four* is another community where the post office was established in 1884. Industry likewise leaves its imprint. *Renova*, Pa., was laid out in 1862 as a site for workshops to renovate railroad cars. *Ambridge* owes its existence to the American Bridge Company.

*Bird in Hand*, like many other Pennsylvania villages, inherited its title from an old tavern sign, while *Altoona* was named for the city of *Altoona* in Schleswig-Holstein. *Philadelphia*, from the Greek, means brotherly love.

In Virginia the influence of the plantation system is marked. Farming does not promote the growth of towns, and the post office is likely to be located at some spot to which the farmers are naturally drawn for necessities. Rivers used to be the real highways, and hence a considerable number of post offices include the designations "wharf" or "landing", as well as "store" or "cross-roads". About 40 towns have names ending in "store" and 50 in "springs". About 100 include the word "mill".

The deeds of the Spanish and French explorers and pioneers are reflected in our names. Pizarro, returning from the conquest of Peru, stopped off at a spot on our Pacific coast and named it Nuestra Señora de Los Angeles (Our Lady of the Angels). Santa Fe (Holy Faith) is shorter and quite as musical. Coronado Beach was the landing place of Francisco Vasquez de Coronado on his futile search for the Seven Cities of Cibola. San Diego (Santiago) means St. James, patron saint of Spain. Alameda is "a place where poplar trees grow," while Alamo, famous as it is, signifies simply "poplar" or cottonwood tree, Palo Alto being "high-mast", or tree. Evidently the splendor of our woods impressed the early voyagers. St. Louis was named for the Spanish monarch Louis, of alleged saintly character. Detroit, settled by De la Motte Cadillac in 1701, means "narrows" or "straights."

Wherever the French missionaries established a camp or station they erected a large wooden cross, under which services were held and councils with the Indians took place. Hence many small settlements became known as La Crosse, and one grew into the great city in Wisconsin. Fond du Lac is "lower end of the lake." Prairie du Chien is dog prairie, the name of an old Sioux chieftain who lived there. An admirer of the French dramatist Racine evidently settled in the west. Daniel Duluth was a French noble and the first white man in that part of the country. Julien Du-

buque was a pioneer and, through his skill in legerdemain, a judge for two Indian tribes.

St. Paul was built around the log chapel erected by a Jesuit missionary in 1841. Missionaries also named Des Moines. On one side of the river that flows through the town dwelt a powerful tribe. On the opposite bank, a smaller, less formidable one; hence Des Moines, the lesser ones. Baton Rouge, the red pole, is located at the point where a huge red pole marked the boundary between the hunting grounds of two different Indian tribes.

Beautiful and euphonious Indian names have been used throughout the country. Kalamazoo is an Algonquin word referring to the illusion created by the sun reflecting from rounded stones in a shallow river bed giving the appearance of otters. Kankakee means the river of beautiful lands. Milwaukee—good land, a favorite place for councils. Montauk—Island country. Omaha—going against the wind. Pensacola—hairy people, a tribe that once dwelt in Florida before the rise in prices. Peoria, a place where there are many fat beasts.

Chautauqua signifies "an easy place to die" referring to a legend of a maiden who vanished beneath the waves. Chattanooga, Cherokee for hawk's nest. Cheyenne, a term applied by the Sioux to seceding tribes—enemies. Hackensack—Algonquin for hook mouth, while Hoboken is tobacco pipe. Sing Sing, from the Indian Sint Sing, means "place of the stones". Schenectady—on this side of the pines. Seattle was an old chief of the Snohomish Indians, who believed that the mention of his name after death would disturb his rest, and exacted a tribute while he lived for the use of it. Saratoga—Saraghoga, place of the herrings, refers to the yearly ascent of the Hudson by the fish to spawn in the lake waters. Wichita, the end of Coronado's fruitless quest, stands for "white man."

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### A DOLLAR SAVED IS A DOLLAR EARNED

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# The New Canada

Condensed from *The World's Work* (July, '27)

*John Nelson*

IN the 19th century the United States had free lands, and was hospitable to newcomers of almost every nation. So was Canada. But the States was the magnet. That condition has changed. Canada has no longer unlimited free land, but it still has relatively cheap land. In 1922, the average value of its farm lands was only \$40 per acre, while that of the United States was \$79. Canadian freight rates, too, are from 40 to 50 percent lower than those of the States. The U. S. Tariff Commission found that Canadian wheat cost per bushel, including land values on a rental basis but not including transport charges, was 52 cents lower than American in 1923.

With these agricultural advantages to offer, Canada is obtaining immigrants by the thousands monthly, while the quota law has sharply suspended the influx to Ellis Island. The congestion of population in England has led the home government to cooperate with all her daughter states in facilitating the transfer of her people overseas. The United States increased its population in the 19th century from 5 to 75 millions, doubling every 30 years. Then Europe was sending its surplus population to the States. As the population saturation point in Europe is now much nearer than 50 years ago, it is reasonable to expect that emigration will be accelerated, especially with the cooperation of the British Government, and the pressure of post-war conditions on the Continent. If so, and if Canada maintains even the same rate as the States, which are now practically closed under the quota law, the Dominion should have 35 millions of people by the middle of the century and more than 70 millions when it closes.

Land alone is not a sufficient attraction. Continued immigration is dependent upon mixed industry, to provide profitable employment for all. In this particular, Canada has hitherto been at a disadvantage. The last century was the age of coal and steel. Both of these were denied to Canada, except for coal of low quality in remote sections which could not be profitably transported. But today the emphasis is on water instead of coal as a source of power. And here nature has evened the scale by giving Canada much greater potentialities than the States. In ten years Canada has increased her power development more than 245 percent, being now third in the world. In per capita power she now leads the world, with 387 developed horsepower per million of population, compared to the States with 97 and Germany with 18. The effect upon industry has been marked. In the last 25 years manufacturing has attained an equal place with agriculture.

It makes for national unity that Canada has this wealth of power, not in one province but in all. Manitoba, supposedly a treeless plain, has more power units in the cascades of the Nelson and the Churchill than there are on both sides of the gorge of Niagara.

Forty years ago the paper and pulp exports of Canada amounted to \$120. Last year the exports of the 100 paper mills reached \$173,000,000, giving Canada world leadership in this industry.

The Dominion has recently discovered that her Laurentian range is not a playground only, but a treasure house also. The discovery has been as romantic as startling. For gold is now being taken from this range at the rate of two and

a half millions a month. Canada will presently become the second gold producer of the world. Four of these mines are already paying dividends greater than those of all the Canadian banks. The silver mines have paid 100 millions in dividends already; so have the nickel mines. Eighty-five percent of the world's nickel and 80 percent of the world's asbestos is coming from Canada. The copper measures of this territory are so much richer than those being worked in other parts of the world, that they furnish interesting food for speculation as to their effect, when fully developed, on the metal markets of the world. The Aluminum Co. of America is building the city of Arvida, which will start with 30,000 people. Thirty vessels will bring the bauxite from British Guiana to the mills here for conversion into aluminum. The majority of the investments in the mining fields are Canadian.

The foreign trade of Canada in 30 years has risen from 200 million dollars to 2160 million in 1925—greater than that of the United States when its population was 76 million. Canada's population is less than ten million. The League of Nations reports that the per capita wealth of Canada is second only to that of the United States and Great Britain, being \$2406, compared with their \$2918 and \$2459, respectively.

Farming is still the basic industry. The farms of the three prairie provinces last year averaged from the sale of products, \$2535. The major field crops of Canada—wheat, barley, oats, and rye—have increased in value in the first 25 years of this century from 125 million to 935 million; this, too, in an undeveloped country where it is estimated not more than one-fifth of the land suitable for cultivation has been brought under the plow.

The significant fact, however, is that only the fringe of mineral wealth has been discovered and that the future holds alluring promise in many forms of activity. Canada's development hitherto has been from east to west. But northward her possibilities are illimitable. Recently, for instance, scientists have evolved Garnet wheat which has

pushed back the frontiers of arable Canada from 60 to 100 miles. Thus has been added to the Dominion a new empire of 50,000 square miles—more than the total area under cultivation in all Canada a few years ago. In 1922 the entire acreage planted with wheat in all Canada was ten million acres less than the new variety has brought into the region of possibility.

Seventy years ago the boundaries of Illinois and Ohio were placed as the extreme northern limits in which wheat could be produced. Yet the finest wheat in the world is now grown at Fort Vermillion, 650 miles north of the American boundary. The new discovery will render eligible as wheat areas the meadow lands all the way westward from Fort Churchill on Hudson Bay, to the Rockies.

This northern expansion is carrying the prospector over the Divide, whose northern slopes send their waters to Hudson Bay. It is leading Ontario to prolong its railway on to the same waters, so that an empire of pulp timber in Patricia, may be manufactured there. The Hudson Bay railway is built to within 100 miles of Fort Churchill. Aviators will fly over Hudson Strait all next winter to determine the trend of the ice pack—the preliminary for a line of wheat carriers that will presently ply from Fort Churchill to Liverpool. This will bring the Saskatchewan shipper 1000 miles nearer to his European market than he is now via Montreal. In Canada, the admonition, "Go West, young man," has become a definite direction to go north.

Canada's future is alluring. She is no longer vexed over her destiny. A nation dedicated to the arts of peace, with no grudges to wipe out, she finds herself growing side by side with a powerful and equally peaceful neighbor, practicing the same principles of government and law, and sharing largely the same racial origins, the same speech and literature and faith. The proximity of two such countries should give little occasion for irritation, but be only a constant incentive to healthy rivalry in accomplishment and to hearty co-operation in development.

# The Case for the Co-Educated Woman

Condensed from Harper's Magazine (July, '27)

Edna Yost

THE other night I attended the annual Alumni dinner of my college. To me it is a miserably embarrassing moment when, following an old custom, each rises to give his or her present status. The women, with smiles and dimples, are no longer plain Grace Jones. Instead "Grace Jones Clark—and just being the mother of two adorable sons." My name is the same they knew me by at college. Mine the unnatural state of single bliss!

With such a college background it was somewhat difficult for me to grasp the fact that one of the pertinent criticisms against higher education for women was the backwardness of educated women in marrying. In my co-educational college we were continually facing the unfounded charge that college for a girl was nothing much but a matrimonial agency anyway. But later, when I began to meet in great numbers graduates of the women's colleges in the East, I began to know intimately something about the alarming problem of educated women who do not marry.

If education fails to keep the minds of both young men and young women open to the idea of marriage, there is something wrong with it. Our women's colleges make no conscious effort to close the minds of their students to marriage, yet this is exactly what is happening. They take a girl who is at the emotional age to fall in love, and mold her into good habits, one of which is to be happy and satisfied for four years without the real companionship of men. The habit continues. My surprise is that they do marry, not that they don't.

The idea of women's colleges, originally, was not a bad one. On the contrary, it was the only way out of the dilemma caused by barring women from the older men's colleges. But when prejudice

against education for women became obsolete, some explanation had to be given for this abnormal isolation, and fear was substituted. So grave fears were expressed as to what normal mingling of the sexes would do to the girls and the men, mentally and morally. Partly it was the lazy fear of educators who found it easier to instruct in an atmosphere of segregation than to aim at that more difficult and far superior type of teaching which is the development of all youth's natural powers.

Education must hold young people to fundamental conceptions of life, and any such conception of life includes rather constant contact of men and women. Any college which provides this contact naturally without lowering its intellectual or moral standards is fundamentally as far ahead of the women's college as successful living is greater than thinking about living.

In the atmosphere of intellectual development without normal emotional contact, two things are likely to happen to the girl: the development of her emotional nature may halt while her intellect leaps ahead; or she may find in other girls a substitute for the outlet of her emotions. To-day we are facing the disconcerting truth that undesirably intense homosexual friendships are admittedly disturbing some of our best women's colleges. And too much of our fine youth is going off the track for us to call the individuals abnormal and to wash our hands of them. Because girls are made out of sugar and spice and everything nice, the so-called unpleasant facts of sex have not been dealt with for years except poetically. And as a result many girls become involved in consuming relationships with each other which they would not normally have accepted.

Nor can the problem be met by hiring a few men instructors and increasing the opportunity for social contacts with men, though the trend in this direction is admirable. In comparison with the unself-conscious normality of the give and take between men and women in the right kind of co-educational college, this inadequate effort seems a pitiful shame.

Recently I talked with a man whose daughter is a junior at one of our women's colleges. He believes deeply in marriage, and sincerely wants his daughter to marry. And he is sure—oh, so pleading sure!—that Peggy is that kind of girl. And so she is, or at least she would be if she had a fair chance. But each year she is getting farther away from it. She has brains; is interested in history. Into her work and friendships with girls she is pouring both brains and emotions. What else in the name of Heaven can she do with them?

Peggy's father knows some men with fine sons. So as soon as Peggy has finished her education he is going to see that she is thrown much more with these fine sons of his fine friends. And then, according to his plan, presto!—love and marriage.

But when Peggy graduates she is going to leave home to teach. She is keen about history, and wants a year in Italy soon. "Of course, if I'm bored, I'll marry," she concludes frankly. Peggy is getting along beautifully in college without men; developing her intellect at the expense of her emotions. The habits will cling to her long after she graduates.

I believe in co-education, and I believe in small colleges. For a girl today I should choose one of a number of such colleges scattered throughout the country, whose educational standards are accepted as equal to Princeton or Vassar, and whose atmosphere is one of cordial fellowship between students of the two sexes. That such institutions do exist is high tribute indeed to the teachers responsible for them; a challenge unanswered by any other group of educators in the world today.

Are these colleges matrimonial agencies? Well, what finer tribute could be

paid any institution of learning that wants to be helpful to young people than the admission that, without lowering its intellectual or moral standards, it is providing them with normal emotional development at the very time nature demands it for them. This article holds no brief for those co-educational institutions whose standards of living and learning are trailing in the dust. It points merely to the fact that there are co-educational colleges in this country today recognized in scholastic circles as the equals of our finest men's and women's colleges, and that they are blessed proof that youth is capable of blending his emotional and intellectual development.

I have admittedly looked at the matter from the viewpoint of what is best for young women. But whether co-education is harmful to young men must certainly be considered. I think the institutions mentioned above, through the quality of their men graduates, are proving beyond the shadow of a doubt that co-education is possible without handicapping a man intellectually. As to whether men can concentrate on studies with girls on the campus needs no consideration—it has been accomplished too often.

The charge that men in co-educational institutions steer away from "fine arts" courses because they find it difficult to express their deep, personal, sublime feelings in classes with young women, is, I feel sure, largely true and deeply to be regretted. But here is a masculine fault which greatly needs to be overcome. It underlies much unhappiness in marriage today. The loyal but neurotic wife of many an intellectual man is the unnecessary, unhappy result of his search for the physical in his relationships with women; for the intellectual and spiritual in his relationships with other men.

I am optimistic about the eventual recognition of co-education as a better way than segregation. Intelligent men will want it. They have so much to gain by it. And parents will demand of educators that they face and work out this problem of making college years a period of natural, all-around development for young people.

(Continued to page 234)

# Animal Poisoners

Condensed from The Forum (July, '27)

H. Munro Fox

POISONS are produced by very many different sorts of creatures. Scorpions, bees, and snakes have glands which prepare the poisonous liquid, and they have tubes to conduct it to sharp spines or teeth for inflicting a wound. Other animals, which have no offensive weapons, nevertheless derive protection by pouring out a poison on the skin. A toad, for instance, does this.

It is remarkable that so many of these different poisonous products are used by savage races as arrow poisons. Snakes, lizards, toads, and fishes have provided such venom, and the juices of beetles, bees, wasps, ants, centipedes, and spiders have been used.

The poison gas of the skunk is a stuff which chemists call mercaptan. It contains sulphur. Now there is a curious example of how an unusual chemical substance may be found in widely different groups of animals. The purple dye used by the ancient Romans for the togas of their nobles was derived from a shell-fish—a sort of sea-snail. Now, newly dyed togas always had an unpleasant smell. Indeed, it has been suggested that the exaggerated use of perfumes by the Roman patricians was in order to drown the unpleasant smell of their dyed robes,—and really unpleasant it was, for the smell of the purple was nothing more or less than the skunk's poison gas, mercaptan.

In some cases we know that poisons play a role in the functioning of the body of the animal which manufactures them. This may be in many cases the real *raison d'être* of the venoms, quite apart from any protective value. The poisonous spittle of snakes, for example, has work to do in the digestion of the snake's food; and a most extraordinary case is presented by a green marine worm, a creature the size of one's thumb, which

may be said to be the most extreme and most successful feminist in the sea. The male is microscopic. Like all sea worms the young of this feminist creature at first swim about, settling down later to staid adult life. Now, if these swimming young settle anywhere on the ground, they grow into the fat female worm; but if they happen to fall upon the skin of their mother, quite another fate befalls them. Part of the worm's skin is covered with a slimy stuff which is poisonous to many animals that would like to eat the succulent worm; but if the minute young settle down on the skin this same stuff, far from killing them, has quite a different effect, for it causes the young to change into the microscopic and retiring males of the species. In other words, young which would otherwise have grown into fat females are changed by the poison into diminutive males.

One of the most fascinating chapters in animal poisons is the subject of natural immunity, the fact that some animals are immune to the poisons of others and remain unhurt if stung or bitten by the poisonous animal, whereas all other sorts of beasts succumb. The desert fox, the Kangaroo rat, and other inhabitants of deserts where scorpions abound are in this happy position, being unharmed by a scorpion's sting. Their cousins, living far away from the desert, would at once be seriously injured by a scorpion's sting, whereas the desert breeds remain unhurt. It is to be supposed that in the far distant past, before the desert animals had this complete immunity to scorpion venom, those which were stung and could not resist died, leaving no offspring. Their luckier brothers, who happened to have a hardier constitution, survived and left behind them a resistant race of descendants.

Another bizarre instance of this same

phenomenon is provided by certain crabs which carry on their backs a kind of sea-anemone. The sea-anemone is a plant-like animal with the power of stinging like a jelly-fish. Minute capsules, each with a needle for penetrating the skin of the victim, are shot out in uncountable numbers when the sea-anemone is attacked, and as the poison is very harmful, few enemies venture to attack the happy creature. Consequently the crab walks about with a sea-anemone on its back for its own protection. No fish nor octopus will attack a crab with such a redoubtable defender, and the anemone enjoys the advantage of sharing the crab's meals. It picks up crumbs from the crab's table by stretching down its food-catching tentacles to the crab's mouth and stealing bits of food.

We now come to the most curious part of this story. How does it come that the anemone's batteries of poison capsules do not injure the crab? True, the crab has a thick armor, but the poison, one would think, should injure the crab by way of its mouth. Recent researches have been revealing.

If the poison is extracted from the anemone and injected into any ordinary crab by means of a hypodermic syringe, the crab very rapidly dies. The effect is most striking when the poison is thus

inoculated into a crab's leg. Within two seconds of the inoculation, the crab, following the Biblical injunction, twists off its poisoned member; but if the poison is injected with a syringe into a crab which bears an anemone on its back, no effect follows at all. The creature does not even notice the venom. In other words, the crab with the anemone is immune. Just as the desert fox is uninjured by the sting of a scorpion, so the crab is unhurt by the weapon of its mate, the anemone.

The researches revealed one further chapter of the story. It turns out that, unlike the desert fox, the crab is not born into the world immune to the poison which it will meet later on. The young crabs are all of them vulnerable, but when one of them adopts an anemone as a permanent guest, it gradually becomes immune to its visitor's poison. Every time a fish or other creature pushes against the anemone, it shoots out a cloud of poison capsules. The crab is thus often forced to swallow a number of these ejected venom capsules and,—as it has to do this day after day,—gradually ceases to be affected. In just the same way the snake charmer makes himself immune to snake or to scorpion poison by giving himself very small but repeated doses of venom from the reptiles with which he deals.

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## The Case for the Co-Educated Woman

(Continued from page 232)

Much has changed in modern life since the segregation of the sexes in colleges was accepted as the best way; and though it may always continue to be the expedient method for certain groups of young people, it is today an unnatural experience. The fine comradeship of men and women in some of our smaller co-educational institutions is

the logical result of a staff of teachers who have dared to throw fear and prejudice into the teeth of expediency, and who are big enough to instruct and inspire young people intellectually while designedly giving them an opportunity for emotional growth. It is a precious kind of freedom which can never be achieved in segregation.



## Super-Guns for Our Army

Condensed from *The Scientific American* (July, '27)

*J. Bernard Walker*

PERHAPS the leading factor in the defences of the United States is the highly efficient Proving Ground at Aberdeen, Md., on Chesapeake Bay, covering an area four miles wide and 15 miles long. The railway and sea-coast artillery firing ground is so located that there is a clear range up to 30,000 yards in front of it, and a water range extending 60,000 yards. The fall of the shell on these water ranges is observed from 12 range towers. Intersecting sights taken from these towers of the splash of the falling projectile give its exact position.

As an instance of the highly specialized work done at the Proving Ground, take the case of fuses of the shells of anti-aircraft guns. As aircraft went higher, it was found that the old powder-train fuses, because of the changing atmospheric pressure and the failure of the train to burn at a uniform rate, were inaccurate. Therefore, the ordnance officers developed a mechanical time-fuse far more delicate than a high-grade watch, but sufficiently rugged to stand the shock of being whirled around with the shell at 30,000 revolutions per minute.

Consider, also, the investigation to determine the proper shape to give the bullet its highest velocity. It was desired to take photographs of a .30-caliber bullet moving at 32,400 inches per second. Not until the time of exposure was reduced to one ten-millionths of a second was a sufficiently sharp photograph secured, showing the "wake," or partial vacuum back of the bullet. Out of this investigation came a bullet with a long pointed nose and a "boat tail"

after portion, which increased the range of the bullet from 3500 to 5700 yards, and this was done without changing the cartridge case or the gun.

The range of the six-inch guns is now 25,850 yards as against 17,160 yards, the pre-war range. Moreover, all modern field guns, except the very heaviest, are now provided with a double trail. On the original single trail, the gun could be trained in the horizontal plane only eight degrees; but by the use of the wide open trail, the "traverse" of the gun has been increased to 60 degrees. This has rendered the modern piece an enormously more potent weapon than the type used in the World War.

Another notable improvement in mobility has been secured by mounting guns up to 9.5 in caliber upon motor-driven caterpillar mounts. Since the War, the speed of the smaller units has been raised from 5 miles per hour up to, in some cases, as high as 30 miles per hour. The tractor can be driven through water or it can climb a 45-degree grade without difficulty.

It is stated on official authority that during the war, allied soldiers would "pick up and cherish our Springfield rifles whenever they found one on the field of battle." The Springfield, of course, was hand-operated. This prevented the sight being held continuously on the target. Hence, there has been developed the semi-automatic shoulder rifle, which automatically ejects the empty shell and places another cartridge in position. Today, all the rifleman need do is to hold his sights on the target and pull the trigger.

The automatic machine gun has also become greatly improved since the war, and the Browning machine gun represents, in the opinion of our artillerymen, the highest development of machine guns of the .30-caliber type. Aerial combat has led to the development, since the war, of the .50-caliber machine gun, which throws a bullet four times as heavy and three times as fast as that of the .30-caliber Browning gun.

At the Armistice, an airplane bomb weighing 500 pounds was considered powerful; but today the large army planes can carry a bomb of 4000 pounds containing a ton of high explosive.

We heard much about the .155 (6-inch) gun during the war. The post-war piece out-ranges the World War piece by nearly five miles. It has been mounted on a caterpillar tractor which can carry it at a speed of 15 miles per hour. The limit of such mounting has been reached in the 9.5-inch howitzer, and even this heavy piece can be moved quickly, as soon as its position has been located by the enemy. With automotive artillery, a number of positions can be selected in advance, firing data computed for each, and at the proper time, the self-propelled mount can move to each position in turn, fire a few rounds and before the enemy battery locates its position, it can pull out and move elsewhere.

Wonderful development has been made in anti-aircraft artillery. It was proved in the World War that an airplane could come back with its wings and fuselage heavily perforated with bullet holes. Evidently, something larger than a bullet hole was necessary, and hence the Aberdeen artillerymen have developed the 37mm. gun, which has great rapidity of fire, great range, and carries a fuse so sensitive that it is detonated even by the faint resistance offered by the fabric of an airplane wing. Not only do its bursting shells tear a large hole in the fabric, but the fragments will be scattered like those of a shrapnel shell.

Last year, the latest 3-inch anti-aircraft guns were tried out at a sleeve target towed at 80 miles per hour at a range of 5000 yards, and the hits reached an average of 12 percent. As many as four machine guns are being placed in

a new multiple mount which means that the man at the trigger can deliver a stream of 2000 shots per minute against an airplane. The new fire detector is a remarkable machine which automatically determines the height, range and speed of enemy aircraft and transmits the data to the battery. Carried upon the gun mount are electric motors which give the gun changes of elevation and traverse necessary to insure that shell and airplane will meet at a predetermined position in the heavens. The vertical range of the 3-inch and of a new 4-inch gun of high velocity is such that no existing airplane can rise beyond its reach—all of which means that the airman in another war would have a pretty hot time of it.

Coast-defense guns too heavy for transportation by tractor are carried upon railway mounts. The latest models can transport both the 14-inch and the 16-inch gun. The 16-inch gun throws a 2340 pound shell 55,000 yards. Its armor-piercing shell will penetrate 14 inches of face-hardened armor at any range. These railroad mounts have given our heavy artillery a wonderful mobility. The weakness of fixed defenses lies in the fact that their position is known, and they may be subjected to accurate long-range bombardment. The heavy gun, rail-mounted, is subject to no such disadvantage. The track itself is located so as to take advantage of the cover offered by bluffs, woodland, sand dunes, etc.

The Aberdeen Proving Ground represents the most effective means of preparedness in the United States; since, by providing standard ordnance of the very highest quality and preparing sets of jigs for each weapon, the War Department, in the event of War, will be able at once to start the vast industrial plants of the country upon the task of manufacturing the necessary ordnance, without the intolerable delay which occurred when we found ourselves suddenly enlisted in the World War. Had our nation been as well equipped when it entered the war as it is today, instead of taking eight or nine months to get into action, it would have meant the saving of a million or more lives and millions of dollars worth of property.

# It's a Great Life If You Don't Week-end

Condensed from Harper's Bazar (July, '27)

Fairfax Downey

THE people who used to set out on difficult pilgrimages, desperate voyages of discovery, charges of the light brigade or things like that now go on week-ends. Then they ride back, recuperate for five working days—and dare another week-end! Invitations to get run down for the week-end are already out. So a classification of the types of week-ends should prove timely.

*The Formal Week-end.* It was fashionably late on Saturday afternoon when Elfrida and I arrived for an important week-end. Detraining, we were met by the third chauffeur or possibly he was the fourth. He dealt us our first blow by requesting the checks for our trunks. Elfrida and I recoiled and indicated our bag. Each mentally decided to claim it at the first opportunity, inferring that the other had been so gauche as to forget all luggage.

After entering the highly ornamental gates of the estate, we drove for about 15 minutes and both prepared to get out at what subsequently proved to be only the gardener's cottage. Happily the chauffeur failed to note our attempt. When at length we reached the chateau, we were met and escorted upstairs by a major-domo who informed us as we ascended that we were expected at tea. "Do you suppose we can ever find our way back down-stairs?" Elfrida whispered in the course of the journey. "Have you brought no ball of yarn to unwind behind us?" I demanded hoarsely.

What was our dismay when we found that we were to be parted and Elfrida placed in one bedroom and I in another! Being too proud to plead, we fought a battle of dirty looks for possession of the suit-case. Elfrida won.

Somehow we got back down-stairs. Formally greeted by our hostess, we did our best to rise to high tea. Then we were parted again and allotted to separate bridge tables, playing for a penny a point. After this Spanish Inquisition for two hours, they let us go dress for dinner. In our rooms, we found the help had penetrated the terrible secret of the single suit-case. They had unpacked and put one article of apparel in each drawer. It had not quite gone around at that.

I took in to dinner the lady whom an hour earlier I had failed to take out of a double of an original two spades. Ours was not a love-feast.... Battalions of butlers maneuvered, moving right by squads for the soup and left front into line for the fish. They attacked and retreated rapidly with the entree, fighting a successful rear-guard action as they brought off the roast. Superior numbers told with the dessert; they captured it and the field was theirs. "Be sure to write our hostess a bread and butter letter—that's all I managed to get to eat," I murmured to Elfrida.

Before going down to dinner, I had moved my pajamas into Elfrida's room, determined to stand by. When we were permitted to retire, I found that an indignant valet had moved them back again to my room. But nothing daunted, I charged across the hall and joined my wife, having camouflaged my bed. "I'm going to lock the door," I said; "I'm afraid the maid might be in in the morning and give me your bath."

*The Feverishly Gay Week-end.* Our host met us at the station in a speedster, and got a racing start. He accused us of picking a slow train. "Life is short," he observed, and very nearly proved it on a

sharp curve. "Now if we hurry," he said—how often we were to hear that phrase!—"we have time for 11 holes of golf and a swim before dinner."

By playing through, over, and around preceding matches, we got in ten holes. Then we rushed in and out of the ocean and back to the house. "Fifteen minutes to dress for dinner!" Elfrida exclaimed. "Only one of us gets a fresh-water bath." Resignedly I decked my briny frame in my dinner togs. "If anybody at dinner asks, 'Pass the salt,' please hold me back," I adjured Elfrida. "Nobody will have time to ask that," she prophesied.

Before dinner, we double-timed over next door for cocktails. Then we hung up the 440-yard dash, A. A. U. Evening Clothes record, sprinting some place else for more cocktails. . . . After dinner we catapulted ourselves at the bridge table. No time was lost there—only money by Elfrida and me. Next, "We're Off!" as we broke for a dance. We did not stay long but speeded away to another dance, from which we galloped to a roadhouse where we danced to quicktime until it closed. Following that, Elfrida and I were allowed to collapse in our beds.

Our host knocked on the door at 8 a. m., and uttered a merry cry of, "Up, slug-abeds!" All we did that day was tennis, church, swim, golf, swim, run another cocktail relay race, dine, and bridge. After the fifth rubber of bridge had snapped back at Elfrida and me, we gasped that we had to get back into town that night.

Our host and hostess said they had a big day planned for tomorrow. But when it developed that we had only three minutes to catch our train, a glad light burned in our host's eyes. "You can just make it," he cried, "if we hurry."

*The English No End Week-end.* The uniqueness of this week-end lies in its policies of non-interference and non-cooperation. Our hostess, having chanced upon us coming in the front door, remarked casually: "Ah, there you are. Do anything you like, won't you?" So saying, she disappeared magically.

We did not see her again until dinner time, but after wandering aimlessly for

several hours, we bumped into our host. Though plainly disconcerted at his failure to keep out of the way, he rose to the occasion. "Are you there?" he inquired doubtfully. We said we were.

"How jolly!" he retorted. "Who's for golf? Who's for a bit of tennis?" Whereupon he vanished mysteriously. Since we were not able to find out how to reach either the links or the courts, Elfrida finally demanded: "Who's for a bit of punting, if we can find a football? Who's for a bit of Mah Jong?"

"Not I," said I, tripping over a wicket. "But I am for a bit of this croquet." The game exhausted us. After dining stolidly, we were permitted to go to bed early, since we were rising early to ride to hounds.

Because it is very English, we breakfasted from the sideboard, for which I can see no good reason until *after* one has ridden to the hounds. After that, I was given a strange and resentful mount and went a-hunting. Suffice it to say that I envied the fox, and several times tried to change places with him by getting to earth. I would rather pass over also the informal polo of the afternoon in which I found out why poloists wear those hard, funny hats. Came the evening, and head aching, frame sore and stiffened, I dressed for dinner and the Hunt Ball.

I was the dance floor transportation of a string of heavy-armed, formidable dowagers who earlier in the day had picked on big, strong horses. By 11:30 I conceded my mask, brush, and sore pads to the husky Diana who was my reducing partner. Telling her politely that she was in at the death, I fled.

"What was that peculiar dance I saw you doing this evening?" asked Elfrida, as I sank groaning to my couch. "The Black and Blue Bottom," I moaned.

Then came the memorable day when Elfrida and I telephoned our excuses, and stayed home over a week-end, resting and reading. Elfrida twirled a radio dial, and, clear as a bell, enchanted music was wafted to us. The tune was "Home, Sweet Home"—without variations.

## Forests and Floods

Condensed from *The American Mercury* (July, '27)

*Willis Luther Moore*

THE public is being induced to favor large appropriations for the conservation of millions of acres of bush lots and scrub timber that can never grow anything of value. The reason given is that this otherwise worthless vegetation protects the water supply of great centers of population. Yet measurement of the quantity of water taken up by trees and plants and exhaled to the air, shows that the actual effect of a forest is not to conserve the water supply, but to rob the soil of its moisture. The policy of patrolling and protecting vast areas of bush lots is like an insane banker hiring armed guards to see that no harm comes to those engaged in stealing his treasures. If vegetation on a watershed actually conserves the moisture in the soil, then every orchardist, instead of cultivating between his trees, should grow bushes, weeds, and grass there.

Many Americans believe that unless vast areas are returned to forest conditions, floods and droughts of increasing intensity will be felt. Many have been deceived by the fact that rain gauges exposed just above the trees in forest areas catch more rain than similar gauges exposed over unforested areas in the same region; but this is due to the fact that trees restrict the flow of the wind, and gauges always catch more water with a given rainfall where the wind velocity is retarded. Most of the precipitation of rain takes place several thousand feet above the earth, and there can be no appreciable difference in climatic effect between a forest covering and one of bushes, grass, or growing crops.

If the cutting of the forests has intensified droughts surely the effect will be apparent in the records of rainfall. One of the best of these, kept at New Bedford, Mass., shows that since 1814, whatever change has occurred during the time when much of the forests of New England were removed, was a slight gain in precipitation. Here, where deforestation has been excessive, the record of rainfall shows a steady rise since 1836 to a few years ago; and in the Ohio Valley, where the forest area has been greatly diminished, no decrease of rainfall is shown.

Erosion is undoubtedly more rapid from cultivated and neglected fields than from forests, but it may be reduced by proper methods of cultivation and by keeping the soil well supplied with humus through a rational system of crop rotation.

Many believe that there has been an enormous increase in the floods of the Ohio Valley. If the period from 1871 to 1908 (for which we have figures) be divided into two periods, the Ohio river at Cincinnati showed an average for the first half of the period of 17.3, and for the second half 17.6—but .3 of a foot greater than for the first half. The average rainfall for the same two periods shows a gain of .5 an inch for the second period, which nicely agrees with the slightly greater run-off. It is apparent, then, that changing forest areas into cultivated fields had no appreciable effect on the flow of the Ohio river during a period of 38 years.

The high and low water data for the rivers of the Ohio catchment basin, the

Tennessee, the Cumberland and the Ohio, for the same 38-year period showed clearly that the average high water was no higher and the average low water no lower for the last half of the period than for the first half. The differences were slight, and what there was showed improvement in stream flow as the forests were cut; the low waters were slightly higher and the high waters slightly lower. Every informed person, indeed, knows that the climate of this continent is actually determined by its size, the height and trend of its mountain systems, the prevailing direction of the winds, and the proximity of the oceans, and not by man's scratches on its surface.

When the Seine inundated Paris several years ago the American press almost unanimously ascribed it to deforestation of the river valley. French engineers who had made the hydrology of this valley their special study, showed that quite the contrary was the case. Accurate observations go back to 1615, and figures for five half-century periods, obtained by averaging the highest-water readings, recorded at the bridge of La Tournelle, are as follows: first period, 27.3 feet; second, 26.3; third, 25.3; fourth 22.4; fifth, 21.2. M. Belgrade, the engineer, says:

The continued decrease of the floods for each half-century is remarkable, and yet the trees have steadily and unceasingly been cut down, and the forest transformed into cultivated farms. What would we gain, then, in rewooding our fields?

Ernest Lauder, chief of the Austrian Hydrographic Bureau, in an exhaustive study of the Danube for 800 years, taking into account 125 floods, concludes that progressive deforestation has had no effect in increasing the frequency of floods, or in augmenting their heights. He shows that the flood of 1899, which was a summer flood, was severest where it came from the heavily wooded districts.

At the International Congress of Irrigation, held at Milan in 1905, representatives from France, Germany, Italy, Austria and Russia heartily favored the protection and cultivation of forests, but were unanimously of the opinion that forests exercise little influence on either the high water or the low water of rivers.

In the Yellowstone National Park, Brigadier-General Chittenden has shown that forests protect the snow from drifting, while in the open there is much drifting and in consequence an early Spring clearing up of the places well exposed to wind and sunshine. When warm rains come on, forest snow melts fast because of its even distribution, and this leads to higher freshets and a less enduring runoff from the mountain woodland.

Many investigators are deceived by the fact that when rainfall is light, dead leaves and moss restrict the flow, and rush to the conclusion that forests restrict floods. But the fact is that when the rainfall is heavy and continuous, as it must be to cause floods, there is practically no difference in the flow of water in the forest and in the open, for it can be shown that the runoff from a smooth surface and a rough one covered with debris is equal after the rough surface becomes well wetted. As it is only after all surfaces are saturated that flood conditions occur, the rain that falls before saturation has little or no influence on freshets.

Forests should be preserved and protected for themselves alone, and not because of any supposed beneficial influence on climate or floods. Instead of wasting public money in protecting bush-lots, let us expend it in impounding flood waters. There is no doubt that by the joint use of levees and impounding reservoirs the surplus waters that constitute devastating floods can be controlled, and our rivers utilized to do a vast amount of work of the nation.

Water power would in that case be protected from monopolization and its energy given to the people at reasonable rates. In magnitude and expense it would be a work analogous to the Panama Canal. The loss by floods in the United States in one decade would more than build two Panama Canals. Turn the skill and energy of another Goethals upon the problem of the floods, and in less time than it took to build the Canal it will cease to be a problem, and the nation will be richer by hundreds of dollars for every one that is expended.



# Marvels of the Coconut Radio in Tahiti

Condensed from *Travel* (July, '27)

*James Norman Hall*

NOT many radio devotees know that the inhabitants of Tahiti, in the South Seas, have had for centuries a very remarkable wireless service known as the Coconut-Radio. There is not a village on the island which does not have both receiving and sending stations, and the service is remarkably efficient, due to the fact that a group of extraordinary old ladies are in charge of the stations, serving purely for the love of the work itself. They have plenty of time to give to it, for most of them have long since buried their husbands and raised their children, so that their household duties—never irksome even at their heaviest in the South Seas—have been reduced to next to nothing. Indeed, they seem to live on gossip.

Nothing escapes them, and you yourself will not escape if you chance to be passing the dwelling of one of them. "What's the news?" she asks eagerly. On an island so remote from the world as Tahiti, everything that happens is news, and if you should go on without unburdening yourself she will invent something after you have gone, and broadcast it to all stations on her side of the island, giving your name for authority as to its truth.

It is amazing how these women manage to disseminate immediately, and to long distances, the news they have heard, or thought they have heard, or wished they had heard. One day I was riding a bicycle through a country district ten miles from Papeete, when I was hailed by one of the news-spreaders. The old lady asked where I was going. I told her I was on my way to the district of Tautira, to visit a friend, whom I named. When she had wormed out of me every little detail about my proposed visit, she gave me the gossip of every village within 15 miles. Then

she startled me by saying: "Don't you think it's about time you were getting married? I can see that you need a wife. There's a hole in one of your socks, and two buttons off your shirt. Now there's Nuna-Vahine in Tautira—she has two fine daughters, and either of them would make a good wife for you."

I thanked her and went on my way. I had 15 miles farther to go, and rode along in leisurely fashion, enjoying to the full the drowsy silence of the afternoon. No one passed me on the road, but when I reached my friend's house—although I had not informed him of my coming—he was expecting me, the table was laid for two, and supper was all ready. I asked him how he knew I was coming.

"By coconut-radio, of course," he said. "The message came nearly an hour ago. But what's this I hear about your going to marry one of Nuna-Vahine's daughters?" Then he gave me all the details. Not only was I going to marry one of them, but I had already asked for the older one. The proposal had been accepted, and the purpose of this present visit was to complete the arrangements. The wedding was set for the following Sunday at the native church. We were then to go to the island of Rarotonga for a wedding trip, and afterward we were to live in the district of Papeari, where I had decided to purchase a tract of land which I meant to plant with vanilla.

I had some difficulty in explaining matters to Nuna-Vahine and her chosen daughter. On this occasion neither of them regarded the efficacy of the coconut-radio service with any more favor than I myself did.

There is a certain amount of scandalous news-spreading by coconut-radio, and I sometimes think this has its good

results. With us in America, family skeletons are hidden in the most secret of family closets, and people, their lives long, are tortured by the apprehension that some outsider may catch a glimpse of them. At Tahiti, on the other hand, thanks to the coconut-radio, family skeletons are made to frisk and caper like jumping-jacks in the clear light of day, and the result is that most of them are seen to be mirth-provoking rather than shocking. And what a relief it must be to the families concerned that there is now nothing more to conceal.

It is pleasant to live in a place where the inhabitants laugh, not only at but with each other. One finds glum individuals here and there, but as a race they have been blessed with generous gifts of gaiety and light-heartedness. In the younger folk this laughter gushes forth, pure and limpid as spring water, upon the slightest provocation. One is often puzzled at hearing natives laughing immoderately about something which would give a white man cause for only a faint smile; but most of us northerners, with our impaired digestions, our regrets for yesterday and our anxieties for tomorrow, have long since forgotten how to laugh. But in this drowsy island world of Tahiti, where nothing moves with speed except the news over the coconut-radio, there is ample leisure for everything—including laughter.

During my sojourn here I have seen the bottoms of more feet than I have seen in all my life before; feet dangling over the ends of sofas and verandas, resting on the gunwales of canoes, perched on the railings of sailing vessels; large feet, small feet, most of them brown and all of them in attitudes of repose.

Leisure is made a fine art in Tahiti; and sometimes in America, when I am weary of rushing about, and of seeing others both working and playing with such frantic haste, it has been refreshing to think of Tahiti, and to speculate as to what the natives were doing at that particular hour. I do not mean to imply that they never work. On the contrary, when there is occasion for it they will toil as hard as any white man. But they

have also practiced for centuries the art of being idle, and in knowledge of it they are far in advance of northern peoples. A good deal of wisdom is to be found, I believe, at the bottom of such practice, for when all is said and done what does a great deal of the world's feverish activity amount to?

When I first came to Tahiti there was living here a man of mixed Polynesian and American blood. He was waiting for a legacy which was to come to him in the course of time from a wealthy uncle who lived in America. Everyone on the island knew of this legacy. On the strength of it store-keepers had extended him unlimited credit. He had so little ready money that he even bought his tobacco and matches on credit. He had a house and motor-car which were not paid for, and he gave lavish parties to his friends on credit.

At last the long-wished-for event happened. The message was received at the Point Venus wireless station. The legatee, who lived 20 miles from Point Venus, was immediately informed by coconut-radio that he was to receive \$50,000 under the terms of his uncle's will. He hurried to the Club at Papeete, and was ordering refreshment for all his friends when the actual written message from the Point Venus station reached him. He was terribly disappointed and so were all his creditors. The old lady operators had been even more excited than usual. In transmitting the news by coconut-radio they had increased the amount of the legacy by \$49,500.

Whoever doubts the efficiency of the coconut-radio has only to come here for a brief visit. Within ten minutes of his arrival, the news will be known to everyone in the port and the adjacent villages. Within fifteen minutes, the old lady operator at Tahaupoo, the farthest settlement of all from Papeete, will be saying to some crony of hers: "I hear there's a new American just arrived by the steamer. They say—" and then she will give a minute description of the new arrival, a complete catalogue of his physical peculiarities and a great deal of his family history; and if he could be listening, he'd learn many things about himself that he never knew before.

# Why the Champion Is Unpopular

Condensed from *Success* (July, '27)

*Fitzhugh Wright*

WHEN the first fresh cheers have died, the Champion, if he listens intently, will hear a faint chorus of boos. If he manages to hold his title for several years, he will hear more jeers than cheers. Whatever his line, he soon discovers that his crown, although of gold, has jagged edges which cut his pride.

It is not that the personality of the individuals deserves unpopularity. The public is of short memory, inconsistent, and unfair. It must have heroes, but it will not tolerate the same heroes for too long a time, and will unmake them with the same nonchalance that a Roman mob turned thumbs down on its gladiators.

Fundamentally the crowd is in sympathy with the weaker contestant in every contest. It is for the underdog, for the smaller boy in the street fight, for the challenger in a championship prize fight. Everybody rooted for Gertrude Ederle, battling her way across the choppy English Channel. A few weeks later nearly everyone was hoping that Mrs. Corson or Miss Barrett would cross the Channel in shorter time than Trudy had done, and thus replace her as champion.

"Little Bill" Johnston was never so popular with tennis galleries in 1915 and 1919, when he was national champion, as he has been in the last seven years as runner-up to Tilden. There was no reason for this favoritism except that Tilden was champion and Johnston the challenger. In point of sportsmanship there is nothing to choose between them. Tilden has done more to popularize tennis and stimulate interest than Johnston has been able to do. Yet when the two meet in a championship match, nine out of ten want Johnston to

win. They feel he is playing against greater odds and they can give him no aid except their best wishes.

This manifestation of the crowd spirit is more accentuated in boxing than in any other sport, probably because there, primitive feelings have unrestricted expression. No champion is so disliked as the holder of the heavyweight boxing title. Gene Tunney has not yet defended his championship since winning from Dempsey last summer, but already he is beginning to feel the ills that the crown is heir to. He is a likable, decent chap above the average in intelligence. The crowd owes him respect as well as admiration.

He can make a great deal of money, but he cannot win the affection that is showered on Babe Ruth, whose title was not won in hand-to-hand conflict. No opponent can meet Ruth in personal combat to determine superiority. If it were possible, the opponent would receive most of the popularity. In Ruth's case it is a parade, with Ruth far to the front, and the crowd cheers the leader. If some rival could, late in the baseball season, get within two or three homers of Ruth's record, fans would want him to beat Ruth out. In a race if two runners come into the last lap a yard or so apart, the crowd wants the man behind to win. But if the second man is hopelessly outdistanced the crowd cheers the leader, because he is certain to be a winner, and the crowd likes a winner if only for a little while.

John L. Sullivan is the most popular champion in our prize ring history. He was the first American heavyweight champion, and as such a gigantic and dramatic figure. Then, all through his career until he was bloated with beer, he

was head and shoulders above any challenger. No one, till Corbett knocked him out, could establish himself in the public estimation as a worthy challenger. Also he was a personality, and mixed with the crowds. When John L. went into a town he would lead the parade or band, buy drinks for the mayor and city council, and flex his muscles so the boys could feel them. Whenever occasion offered he used to say "I can lick any \_\_\_\_\_ in the world." The crowd liked that. They did not think that John L. was boasting. They agreed that John L. could do it.

Today your champion says: "I have trained faithfully and am in the pink of condition. I shall do my best. May the best man win." That, of course, is a lot of applesauce. The public knows it and resents it.

The challenger frequently is less restrained. He says something to the effect that the champion is a lot of cheese and that he'll knock him loose from his teeth in a round or two. That sounds more like a fighter and naturally appeals to the fans.

Dempsey was a romantic, popular figure when he won the title by battering down the giant Willard at Toledo. He was a greater fighter than Sullivan and, on the day he won the championship, as popular. In seven years he grew to be almost hated, though he was in no way responsible for many circumstances that brought this about.

When Dempsey and Tunney entered the ring at Philadelphia stadium last summer, the enthusiastic cheers were for Tunney. A few weeks later Dempsey and the Champion, Tunney, appeared in Madison Square Garden, and there was no doubt that the cheers for Dempsey far outweighed those for Tunney. Dempsey today is more popular than the Champion, immeasurably more popular than he was in his own championship days. Dempsey is now the under-dog. One writer, speaking of Tunney's war record, said that although he was a marine, he "was on duty behind the lines and in no more actual danger than he would have been in New York." That is petty, and mean. Tunney

enlisted and was ready to go where he was sent. But a Champion cannot expect fair treatment.

In the National Tennis Championships last summer Tilden was troubled with a wrenched knee which handicapped his playing. Sporting writers and fans alike intimated that Tilden was pretending. The greatest of all tennis players, who in seven years lost not more than three important matches, is rewarded by being called a faker.

But the public, if hasty and unfair, is also repentant. Now the whole country realizes that Tilden was handicapped by a wrenched knee, and if Tilden meets Johnston in the championships this year, the crowd for the first time in six years will hope that Tilden wins. He is now the under-dog.

Suzanne Lenglen, when she plays before a foreign gallery, finds the hostile attitude of the crowd as difficult to combat as her opponent. So great is the desire to see her beaten that, against all good form, applause has often greeted her errors.

Golf champions do not draw the same degree of antagonism, because the game itself effectively prevents any player from dominating the field for very long. Bobby Jones, America's most popular golfer, won both the British and American open championships last year. He also failed to win the British and American amateur championships. Nobody expects a golfer to win all the tournaments.

The public is for the under-dog—a commendable attitude in sports. Secretly they want to see the bubble of championship pricked. If an ordinary man slips and falls it is not especially funny. But if the man is frock-coated and high-hatted the mob gathers gleefully and laughs heartily. The ordinary man feels subconsciously that the Champion is superior and resents it; he is somewhat envious and jealous. So he is glad if someone whips the champion. Once the champion has been knocked off his pedestal we are repentant and try to help him back. That isn't logical; but then neither is human nature.

## Cuba of Today

Condensed from The Dearborn Independent (July 2, '27)

*Samuel Crowther*

CUBA is the world's sugar bowl, for sugar grows better in Cuba than anywhere else in the world. In virgin lands as many as 25 harvests have been had from a single planting, and ten is usual in all except the older plantations of the island. Nowhere can great wealth be had out of the ground with so little effort as in Cuba.

In the war years when the beet fields of Europe were being fought over, Cuba supplied the world's sugar. The United States bought the whole crop of 1918, while the Cuban Government bought that of 1919. Then in 1920 the controls went off and sugar which had been considered well priced at  $3\frac{1}{2}$  cents a pound in Cuba soared to 20 cents. A cent in a pound is a big change in Cuba. Cuba went wild with money—just as the United States went wild. Men who had become rich overnight started to build great houses.

The Cubans sadly refer to those days as the "Dance of the Millions." Sugar dropped in six months to below two cents a pound in January, 1921. The newly rich found themselves poor again.

But out of that catastrophe have grown the beginnings of a new prosperity under one of the biggest men which Latin-America has yet produced—General Gerardo Machado, the president of Cuba. He has grasped a new future for Cuba. He is Americanizing it without taking away anything that is peculiar to Cuba.

Of the total commercial investment in Cuba, Americans own to the value of about one and a half billion dollars, which is around two-thirds the value of all property in productive enterprise. About one-half of this is in sugar. The balance is scattered among banks,

tobacco companies, hotels, railways, and power stations.

Has this American ownership benefited the Cubans? First have a look at Cuba. The Cuba of the day's work is not in the cities. The island has practically no factories and hence the cities are only places where things are bought and sold.

Havana is a modern city. It was made so under the direction of General Leonard Wood. He built the Prado which is a fine boulevard where once was an open sewer. He built the sea wall and broad drive known as the Malecon and made himself a man of mystery by letting neither himself nor his friends in on the real estate. But one cannot drive 50 miles from Havana—except toward Matanzas. One cannot drive five miles out of any other Cuban city. For then the roads stop.

It was the policy of Spain to keep the means of communication between different parts of the island as difficult as possible in order that the people might not have the chance to know one another and to organize. Spain did not colonize; she thought that she could exploit peoples. A line of railroad runs the length of the island with branches to all the principal ports, while the sugar estates have their own railroads, but the countryman has to depend mainly upon the horse.

As a result of this lack of transportation the Cuban is not a farmer. Rarely does he even raise his own vegetables. He will put in a few banana trees and some plantains to supplement his regular diet of rice, beans, and pork. The rice, beans, and pork he has to buy. Oddly enough, the national food is not raised on the island. Whatever truck gardening there is in Cuba is done by

Chinese on lands given to them by the sugar estates.

The high ambition of every Cuban is to wear a white collar. If he can be a doctor or lawyer, so much the better and the land is overrun with them. But given a chance, the Cuban makes an excellent machinist. The natives quickly learn to manage gasoline engines, automobiles and tractors and in the railroad repair shops they do really fine work.

For rough manual labor they have no liking and the sugar cane is cut by Negroes imported from Haiti for the season. And incidentally these citizens of Haiti to whom our emotionalists would give complete self-government are worth looking at. If anything they are a little less civilized than their forbears who came over in the slave ships. None of them know their ages, few know who were their parents, and unless they have been in Cuba before they do not have names. They have almost no language, and of course can neither read nor write. But they, too, are emerging. Each man going home buys a doll's-sized trunk in which he puts a pair of shoes and usually a shirt and blue jean trousers.

Sugar growing is big business. To turn cane into sugar requires a mill investment of a million dollars or more. For the cane has to be brought in within two days after cutting and run through great crushers to extract the juice, and then this juice has to be treated until it becomes sugar and blackstrap. This is an intricate process requiring not only exact chemical control; but it has also to be done on a large scale.

Cane is grown by many native Cubans; indeed most of the cane is grown by them. They are known as *colonos* and sell their cane at a fixed share to the centrals—as the mills are called. These centrals also finance them and run in railroad sidings to bring out their cane and in many cases actually own the land.

Thus big business controls sugar and the economic life of Cuba. This big business is American, truly American. The managers have found that only under good conditions can good work be done. Many of the centrals maintain

fine hospitals, and the plantations, for instance, of the United Fruit Company and the Hershey chocolate interests will stand up with any industrial community in America. The houses are clean, screened, and electrically lighted. They go to great expense to find good water and to put in sanitary appliances which the people have been taught to use. Yellow fever and dysentery have been stamped out and even malaria is rare.

I know of several company stores that do a gross business of more than a million dollars a year. They sell for cash and at prices lower than the native stores—which buy on credit and sell on long terms. These stores sell American goods, whereas formerly the goods largely came from Spain.

The people are thus being Americanized through American goods. The Cuban flapper can hold her own anywhere. The young Cuban feels that he has not arrived until he can sport heavy-framed glasses and show a fountain pen in his pocket. The cotton stocking is obsolete. The people I am speaking of are not the rich or even the well-to-do, but the workers who ten years ago lived in thatched huts. Many are still living in thatched huts—but not the younger generation. And, what is more, the younger generation is learning that the things they want can be had only through work.

The richer people are quite Americanized. Their children go to the United States to be educated and they buy their clothes and automobiles in the United States. And the country is gradually becoming bilingual through the motion pictures. These are all American-made and have the captions in both Spanish and English.

The next step is about to be taken. President Machado has actually started building a good road down the center of the island, under a contract with a Boston firm. The thought in the president's mind is that the automobile made America and so the chance is going to be offered to see if it will make Cuba. The experiment is one of the most interesting that is anywhere going on and the next five years will tell the story.



## My Partner, John D.

Condensed from Collier's, The National Weekly (July 2, '27)

As told by Edward T. Bedford to J. T. Flynn

JOHN D. Rockefeller, in his early twenties, was a produce merchant in Cleveland in partnership with a man named Clark, selling vegetables to the small stores in Cleveland. He had already backed a man named Andrews in an oil refinery, he and his partner investing \$4000 in that. But the oil fever was on, and in a few years Mr. Rockefeller sold out his produce business and went into oil as an active partner.

There were about 250 refiners in the country, all quite small, and Rockefeller & Andrews were just one of them, though they very quickly became the largest. Business was conducted then under a system altogether different from our present plan. It was the day of the small independent proprietor. There were few corporations.

Mr. Rockefeller early formed in his mind the vision of a powerful, intelligently managed and adequately financed organization, though few understood just what he was aiming at. Next to his constructive organizing ability the erection of the Standard Oil Co. owes most to his prodigious and fearless capacity for borrowing money. In after years I have heard him say that many a time he went to bed at night wondering how he could pay the loan he had negotiated and awoke in the morning wondering how he could increase it.

If we were to accept the pictures preserved for us by some of Mr. Rockefeller's critics, we might suppose that the oil world at this period was a peaceful industry in which hundreds of small, independent and individual operators were happily plying their business, and that John D. came along and disturbed them. But this was far from the truth. The business was almost a pure gamble. There were too many in it. The methods of drilling were crude. The system of

marketing was primitive and wasteful. The competition was ruthless—men cutting each other's throats and fighting each other at every turn. I know. I was a competitor of the Standard. Everyone in the industry was forever facing destruction.

John D. Rockefeller saw very clearly that there was but one way to establish the oil business upon a sound economic basis, and that was to eliminate the destructive waste which threatened it and to take the gamble out of it. And this could be done in but one way: by ending the savage competition which threatened it and the abuses which arose from it and by unifying the business under an efficient management.

People were fond of telling how Mr. Rockefeller wiped out his competitors. Yet how far that was from the truth! When Miss Tarbell wrote her famous attack on the Standard the 14 members of the directorate, including myself, had all, with the exception of Mr. Andrews, been competitors of the company. Instead of wiping them out, he had saved them. Many a man exchanged the stock of his own company—stock on which he had never made a dollar—for stock in the Standard which made him rich.

John D. Rockefeller was the first to see these things, and it is strange that he should have been thought a criminal for first seeing and then putting into practice a new business policy which would one day become the accepted method of doing business in this country—and, I should add, the system which made us rich beyond all the nations of the globe.

Mr. Rockefeller was really a superman. He not only envisaged a new system of business upon a grand scale but he also had the patience, the courage and the audacity to put it into effect in the face

of almost insuperable difficulties, sticking to his purpose with a tenacity and confidence simply amazing. He did this while a very young man. Indeed, almost all of his associates were young men, and they had reared the greatest business in America before they were 40 years old.

One of Mr. Rockefeller's most conspicuous virtues was patience. He could outwait any man for results. It was this very quality perhaps which was responsible for the mass of false accusations which overlaid his name for many years. He did not reply to attacks. He understood perfectly that any man operating on so large a scale and against established methods was bound to be attacked and that the only thing to do was to wait.

He once wrote to me: "We will not think unkindly of those who misjudge us. In time they will see, as we always believed, that our motives were right and that we have rendered a real service in the proper conduct of our business on advanced lines."

He had a rule of doing nothing of importance without the unanimous approval of his partners or associates. If they did not agree with him, he never became vexed or impatient. One time he wanted to introduce an improvement which would cost \$3,000,000. All the directors favored it save one. At meeting after meeting the matter was brought up and discussed, but the objecting member always held out. Mr. Rockefeller might have gone ahead. But he preferred to have this man's consent, and so he continued his efforts to win him over. Finally one day he said:

"I will build this improvement out of my own funds and underwrite it for two years. At the end of that time if it is a success the company can reimburse me. If it is a failure, I will take the loss." That convinced the objecting partner. "If you can take the risk, so can I," he said.

Mr. Rockefeller, though eager to start a great pipe-line enterprise involving \$50,000,000, waited for two years until he could see a unanimous agreement in his board to the plan.

The present generation knows Mr. Rockefeller more through his great benefactions than through his conduct of his business. And they are familiar with his thorough, painstaking method of giving away money. He ran his business in the same way. No man was ever more thorough about everything he undertook.

He was once asked to contribute toward the erection of a hospital in Brooklyn. He said that he would think about it. Five months later he asked the chairman of the committee to call. Mr. Rockefeller produced an elaborate report and a map. "I find," said he, "that there is a hospital in that section already doing very well some of the work you have in mind. The other objects you propose are excellent. But you are not providing enough funds. Now, then, you double the half you propose to raise, and I will double my half, and we will build the hospital. Moreover, I think we had better create a surplus for sustaining the hospital."

That is a perfect example of the manner in which his public benefactions were carried out from the first . . . I think I ought to tell of another generous trait in his character. He was always willing to give credit to others for what they did. One time before a legislative committee he was asked to what he attributed his success and he answered: "To others." That was and has always been his honest belief. No man ever went to him with an idea without being made to feel that it was appreciated. And he was always generous in his judgments of those who worked with him. One time I thought I saw an opportunity for branching out in an ambitious way in South America. It was a failure, and we managed to save just 60 percent of the investment."

"Fine!" said Mr. Rockefeller. "It was the way you handled it which saved that much for us. We do not always do so well upstairs."

Business today is conducted in accordance with principles perceived by John D. Rockefeller over 50 years ago. He not only founded a great business institution: he established a system.

# The Art of Entertaining Ourselves

Condensed from *The North American Review* (June-Aug., '27)

Earley Vernon Wilcox

HOWEVER important a steady job at a fair wage may be to the individual, what he does in his spare moments is of far more consequence to society.

"I am sick of economics," said an old classmate at a recent reunion. "Economics is the apotheosis of force, greed, volume, speed, selfishness, quantity, noise, arrogance and vulgarity. It arrays man against man, class against class, nation against nation. Knowledge has no significance in economics except as a weapon to beat an enemy or overcome a rival. To the economist literature may be worth considering in the course of an education if it can teach the student how to make two limousines grow where only one grew before. If history is able to suggest a way for us to get the better of our European competitors in securing South American trade, it may win a place in the curriculum. Even science is useful in so far as it helps us to become independent of German dye manufacturers, the French lace makers and the English woolen mills. And so on through the whole gamut of possible subjects for study the economist measures everything with the yardstick of immediate practical utility."

"But chemistry," I interrupted, "might possess permanent educational value in addition to teaching us how to make dyes. Zoology, rightly conceived, may reveal to us new beauties in the animal world as well as show us how to produce the 300-egg hen. And from geology we may learn something of the drama of Creation as well as how to locate an oil well."

"Yes, but the emphasis is on the wrong notes," retorted my friend. "The champions of economics are trying to dominate the whole educational pro-

gram. To them the only bright side of anything is its economic aspect. Life is portrayed to students merely as a rough-and-tumble contest for physical supremacy."

I recently secured a list of 100 names of the greatest figures in the fields of art, music, painting, poetry, fiction, philosophy, politics and other lines of human achievement from ancient to modern times. I showed this list to a number of acquaintances, including 14 well known scientific and economic experts in the Federal Departments in Washington, asking each man for a critical opinion on the worthiness of the 100 names to be included in such a list of honor. The best informed of the 14 experts had heard of only 71 of these 100 famous names and one man had never heard of but 25 of the list.

A mature man, a graduate of two colleges, and widely known for his scientific and economic investigations in a great Federal Department, informed me that he had never before heard of Bergson, Brahms, Bach, Beethoven, Dante, Ibsen, William James, Kant, Leonardo da Vinci, MacDowell, Moliere, Rousseau, Sophocles, Tagore, Yeates, Rodin, Joseph Conrad and Amy Lowell. I learned further that he had never read a page of Shakespeare, Milton, Scott, Dickens, Thackeray, Goethe, Dumas, Cervantes, Stevenson, Washington Irving, or Poe.

Men who grope their way across the stage of life from entrance to exit in a long night of color blindness to everything except economics, are missing a large part of the fun. We seem to be losing the art of entertaining ourselves, and must hire professional entertainers to keep us from suffering too much ennui and peevishness during our idle hours.

The fact that 5,000,000 persons attend the movies daily indicates that too many of us do not know what to do with ourselves outside of the regular working hours. I have acquaintances who, like the spoiled infant that must be constantly tossed up and down, are unhappy unless they are whirling around the city in a car, or watching pictures flash across the screen, or sipping fountain drinks in a drug store. We have forgotten how to amuse ourselves, and we must now pay the fiddler to make our leisure endurable.

But may there not be simpler, less expensive but equally enjoyable ways of using leisure, ways that make leisure a period to be eagerly awaited rather than a dreaded incubus? The first way that opens out to my vision is the pleasant pathway of good literature. Man has fashioned no other treasures comparable in value with great literature. Horace made the whole world richer for all time by a few strokes of his pen. Faust, Hamlet, Ivanhoe, Don Quixote, Falstaff, Portia, David Copperfield, Becky Sharp, Jean Valjean and the thousands of their comrades in the pages of literature stand ready to welcome all visitors to their realm, and to fill with joy, amusement, comfort and soothing satisfaction all the leisure time available for such visits.

Why, then, is this supreme and inexhaustible source of pleasure so often overlooked in the frenzied search for entertainment to fill up spare time? Well, thereby hangs a tale. Our neglect of English in homes and schools is becoming a national scandal. We have created huge subsidies and endowments for the study of insect habits, fecundity in hogs, heredity in rats, methods of canning peaches, pruning grape vines, manufacturing nitrates, raising blue foxes, in fact every subject that human beings could study, except English and literature. Isn't it about time that as a Nation we begin to give encouragement to the universal and systematic study and enjoyment of the medium through which all our joys, griefs and other experiences must find expression?

The youth need some training for citizenship as well as for plumbing, plastering, pork packing and prune production. An insight into literature

provides another needful ingredient of life. But too often the trustee's exhortation to the teacher is: "Cut from the curriculum, so far as possible, all useless frills such as literature, history and similar stuff, and bend every effort with all possible speed to transform the raw material which comes under your care into efficient taxi drivers, wireless operators, stenographers, and other useful members of society."

The problem of the wise use of leisure is screaming for help. Many of the machine jobs can be learned in three weeks' time. In fact the majority of youths who enter the trades receive big wages after a month's apprenticeship. Thus they are provided with a generous living. But what will they do with their leisure? Machine education cannot replace the thoughtful, constructive use of leisure. Education should develop the ability to use spare time profitably to oneself and to society. For in these roaring times of industrial efficiency working hours make up but a small part of the day. The idle hour program is a far more important matter.

In short, we need more literature in the schools, and a keener appreciation of literature in the home circle from grandfather down to the four-year-olds. In no other way can the leisure hour be so easily filled with pleasure and profit. By a strange irony of fate the biggest present-day economic problem is one with which economics cannot deal, viz: the right use of the increasing periods of leisure time, brought about by modern industrialism. We make generous financial allotments for education, spending in fact almost half as much for that purpose as for cigarettes. But our standard system of education helps prepare us for only the few working hours and leaves us to our own devices the rest of the time.

The teacher may inspire the pupil with a love of good literature. If he succeeds in so doing, the pupil in his later life will rise up and call him blessed. Is it too much to expect of the schools that they make a more determined effort to prepare the student for the business of life as a whole and not merely for the hours he is to spend in the shop or office?

# The Twin Gods of Bad Business

Condensed from The New Republic

*Stuart Chase and F. J. Schlink*

THE marked improvement in business ethics during the past generation, plus an increasing amount of legislation and government inspection, has, by and large, distinctly raised the quality of the goods the consumer buys today. But there is still a very considerable area where adulteration, misrepresentation, and worse, are still in evidence.

Testimony was introduced in the "truth in fabrics" hearings to the effect that 90 percent of the fur sold in this country is not marketed under its right name.

In 1919, of all "silk" hosiery manufactured, 17 percent was of pure silk, 74 percent of silk adulterated with other things, 9 percent of straight artificial silk. Perspiration is especially injurious to artificial silk, and to silk weighted with metallic salts. A mineral salt bath will sometimes convert a pound of raw silk into three pounds of silk cloth. Such baths seriously lessen the fabric's strength.

There is a Peruvian cotton which feels and looks like wool. It is mixed with wool fabrics and sold as all-wool material. The process of making a nap on cloth has been so well developed that a fabric entirely of cotton may be made to resemble wool. Your "natural wool," "camel hair," "Scotch wool," "lamb's wool," "Persian fleece," or "natural merino," is often a combination of wool and cotton. The Knit Goods Manufacturers, we are glad to note, have recommended discontinuing these improper labels.

Cotton mixed with linen, or especially treated, is sold as linen. "Irish linen" handkerchiefs often contain only 50 percent linen. A drop of oil on pure

linen is transparent; on cotton it is opaque. (Here is a test which the consumer can himself conduct.) Starch, glue and gum are used to give body and gloss to cheaper grades of linen. The first washing undermines the finish.

The braid used in straw hats is frequently of wood shavings, which, when lacquered, looks like and sells like the more expensive straws.

The Federal Trade Commission reports various firms falsely advertising, as "Philippine Mahogany," wood that is not mahogany. Mahogany does not grow in the Philippines. The Commission has long been in controversy with furniture manufacturers on the question of correct marking and descriptions of furniture woods. During 1926 it succeeded in getting 861 concerns to subscribe to a code of honest labeling and cataloging. The National Retail Furniture Association at first approved the code, and then, after the Grand Rapids manufacturers decided not to abide by it, withdrew its approval.

Paints, varnishes and similar materials have been the subject of an unusual amount of adulteration and misrepresentation, for more or less obvious reasons. In the first place, adulteration cannot be determined with certainty at the time of purchase, by anything but the most careful laboratory examination. In the second place, the results of using bad paint and varnish are not disclosed for a long period—perhaps years—when the source of supply may long since have been forgotten. The importance of honest paint, varnish and other rust-proofing products may be judged from the estimate of Sir Robert Hadfield; the waste of materials through corrosion amounts to \$2,500,000,000 a year!

Jewelry is in the category of luxuries, but methods of its adulteration may prove instructive. In the United States the National Stamping Law, designed to control the marketing of sterling silver, gold, and platinum, has been practically inoperative, because it has required proof of intent to deceive. There are 25 to 50 cases on the Federal Trade Commission docket concerning such terms as "filled," "gold filled," and other designations now used to bewilder the purchaser. A type of pencil, commonly sold, is made in parts. The jeweler's association has held that the maker should not mark this pencil "14K" when only the small top part is in fact 14K, while the rest is thin plated material. Candlesticks are being made with the whole exterior covered with a coat of sterling silver, but with the interior composed of pitch, cement, lead, or steel. Such are marked "sterling silver."

Platinum jewelry is popular. The manufacturer makes rings containing white gold, at \$14 an ounce, to the extent of 60 percent by weight of the ring, with platinum, at \$150 an ounce, forming the remaining 40 percent. He then proceeds to mark the ring "Platinum, 18K." One piece of jewelry having a setting of "platinum" valued at \$300, when assayed, showed less than a dollar's worth of platinum.

Losses to consumers through short weight in bread are said to amount to \$100,000,000 annually in the United States. Much of this comes about because of the ridiculous diversity in weights of loaves, making it practically impossible for the consumer to judge price per pound. Data gathered in 67 cities on the weight of 3000 loaves of bread, showed 105 different weights.

In some communities eggs are sold by the pound—as they should be. A common practice in such communities is to gather up all the small eggs and ship them for sale to other communities where they are sold by the dozen. When sponges are sold by weight, they are likely to be loaded with salt and other substances. The Federal Trade Commission found 22 firms guilty of this practice at one time.

One of the most interesting developments of the higher salesmanship is the treating of the weight or contents of a package as a matter of no consequence to the buyer. The firms which regard the amount of salt or soap powder or noodles or breakfast food as too unimportant to mention (except where required to do so by law), ought not logically to be concerned about the price to charge. But such is never the case. Compared with a home-prepared breakfast food of ground wheat for 4 cents a pound—than which nothing could be more wholesome—it would be interesting to see what these prepared breakfast foods worked out to, per pound.

All manner of devices are utilized to make the consumer think that he is getting more than he actually receives. Nowhere is this confusion more prevalent than in the sale of package goods, where the dominating motive is often to appease the buyer's appetite by the succulence of the container, rather than by its tangible contents. The consumer may be glad to pay more per pound for convenience, but he ought to know *how much more* he is called upon to disburse. The record should be clear.

Here are electric lamps of certain imported and "gyp" manufacture sold by the million, mainly to poor people. They are represented to be of the efficient gas-filled type, when really they are the ordinary vacuum lamp. Cheap stores are selling thousands of electrical appliances which have not been tested and approved by the Underwriter's Laboratories and are dangerous. Four worthless and unsafe electric irons selling for \$1 each were found to burn out in three to 35 minutes. (15,000 dozen of these were imported by one New York dealer.)

The foregoing evidence indicates only too clearly that there are significant groups of products in which the production of sound goods, accurately described, and sold at a fair price, has not been the dominating motive of those in control of the processes. Who shall say how much of this loss might be preventable if the consumer could be armed with the findings of impartial analysis and test?



## Sensitivity and Progress

Condensed from *The Century* (July, '27)

Walter B. Pitkin

LAST month I showed the perils of breeding many more superior persons. I will now consider the proposals of the Eugenical Bloc founded on the conviction that "all noble-hearted but soft-headed schemes for ameliorating the conditions of life have failed and will fail to improve the race; and are in fact hastening its deterioration." The Bloc assures us that we are, with all our charities, simply making ourselves the drudges of a horde of misfits who will rapidly multiply and in time swamp us. Bad blood drives out good blood; that is its thesis. Hence it is the superior man's duty to reduce the birth-rate of all types whom he, in his superiority, deems inferior and dangerous.

The Bloc insists that we superior people are already being swamped by a growing army of inferiors. It cites army intelligence tests. "The army tests show that there are 45 million people in this country who have no sense. Their mental powers will never be greater than those of 12-year-old children."

Many psychologists, however, have already exposed the error in this assertion. The army tests were designed to measure the alertness of a man's mind, not its absolute ability. They showed how fast the subject responded to the questions. But because a man is no faster than a 12-year-old child in answering certain test questions correctly, we cannot infer that the man "has no sense". You might as well argue that a low-speed gas-engine has no power because it cannot run at the velocity of a high-speed engine. Now, in men as in engines, the low-speed type often is better than the high-speed. A slow acting Diesel engine burning crude oil has twice the cruising radius of a gasoline-engine of the high-speed automobile variety; and the Diesel

costs about one-tenth as much to operate. So with men. You will find success and happiness in many a phlegmatic citizen who takes ten seconds to decide whether two plus two can confidently be asserted always to total up to four. He can often be counted upon to travel further and more smoothly than the fast thinker. The race is often with the slow.

But to our main subject! The Bloc declares that our humanitarian era is multiplying weaklings. By protecting weaklings, the racial germ-plasm is corrupted, they say. Give us the old virility! Back to the sturdy Cro-Magnon!

From all the outcry you might be led to think that this business of ameliorating the conditions of life was a recent discovery. But it is not. Amelioration has been going on for several hundred thousand years.

The human race began protecting its weaklings when some prehistoric Edison invented the knobbed club as a defensive and food-getting implement. Before the knobbed club was placed on the market, millions of mollicoddles perished because they were bitten unawares by some hungry wolf. More hordes of inferior physiques were delivered from doom by the gentleman who, some millennia before history started, went first into the clothing business. Think how effectively the arctic blasts exterminated the thin-skinned, the anemic, the tubercular, and the rheumatically inclined before raiment was invented!

Before Mr. Prometheus put fire on the market, other millions died because they were too weak to endure the dampness of their caves and mud-huts in the raw winters of the seven glacial epochs. Still other millions died before the day of fire because their stomachs rebelled at raw

carrots, raw bark, raw rabbits, and raw bones....When the ancestor of Henry Ford figured out the mysteries of the wheel and launched the first transportation business, living conditions were shockingly ameliorated. Before this race-wrecker came along, millions of weaklings died as a result of exhaustion while trying to drag or carry their household effects out of a famine region into some land of milk and honey.

Thus ever and ever men have been softening their lives for half a million years or longer. They have trained horses to save the weaklings who would rather ride than walk. They have planted grain for the lazy chaps who would rather grow their winter's food where they choose to live than go after food a hundred miles or more away, when their local supply runs out. They have concocted medicaments from herbs and earths to heal the ailing who might better have died. They have passed laws to protect the meek against the ruthless.

In fact, save for a few tribes of tree-dwellers and bushmen, the entire human race has become so thoroughly softened by its own incorrigible passion for ameliorating conditions that scarcely a man now living could outlive a gadfly if he were compelled to get along without fire, clothing, shelter, and all the other enervating conveniences enjoyed by us all since Cro-Magnon days.

The Bloc says that amelioration hastens racial decay. Well, where is the decay? The Bloc replies that "microbic diseases are lessening, but man's incapacity to resist them is apparently increasing." Man goes on growing softer and softer, they say. He cannot resist bacteria as once he could. Well, let us see. Since the development of modern transportation, and the herding of people in huge cities, the frequency of individual exposure to some bacterial plagues has increased prodigiously.

Consider a typical farmer and a typical city-dweller. The farmer meets, in the course of an ordinary day, not more than five or six people. Contacts with infected food and garments, freshly dispersed sputum, or exhalations at very short range are the main hazards, of course. Suppose that our farmer runs

into one such hazard hourly. In every 12-hour day he takes 72 risks. How does this compare with the city-dweller?

Well, he travels normally during rush hours. On the street, in his conveyance, and often in his office or workshop he touches the clothes of hundreds of people, crowds against them, and endures their promiscuous coughs and sneezes. In one elevator he is thrown in with from 5 to 15 people. In one subway car, he inhales the breathings of 30 to 50 humans. On a crowded platform he elbows his way through a hundred more horrors. At the motion-picture house, of an evening, he meets another score. And so on. I suspect that the inhabitant of almost any large city takes fully a thousand risks of this sort a day, as compared with the 72 of our farmer.

The truth is that, while bacterial diseases have increased, especially those which are air-borne, exposure to their bacteria has increased much more. And this would lead us to suspect that man is resisting bacteria better now than ever before.

Ah, but cancer! The Bloc loves to gloat over cancer. That is sure proof that civilized man is crumbling in his very fiber! But nobody knows what causes cancer. Its increase may be due to something that has as little to do with degenerate germ plasma as the well known Goiter Belt has. Twenty-five years ago the Bloc might have viewed with alarm the strange frequency of goiter among the Nordics of the Great Lakes region. But this affliction has been traced to nothing more than a lack of iodine in the drinking water. The trouble ends when iodine is dumped into the reservoirs. Cancer may be quite as simple, once we know what it is. It may be due to canned peaches or to reading the Arabian Nights.

Ah, but how about nervous diseases? How about insanities? The Bloc would have us believe that all these modern neuroses and psychoses come from a decay of the germ-plasm. But the Psychologist's Union doubts this. Thousands of these hypersensitive persons suffer from some more or less obscure maladjustment. Let this be corrected, and they return to full normality. They have drifted into the wrong town,

into the wrong business, into the wrong church, into the wrong marriage, into the wrong philosophy of life, into the wrong pair of shoes.

Consider how dangerously fast man's environment has changed. Within this last millennium, there has been a greater change in food, in clothes, in fashions, in politics, in business, in science, in art, in travel, in wars and adventures, in home life, and in community associations than in all the 100,000 preceding years. Nay, more! In each year of our millennium we have lived through greater changes in all these domains than men before us endured in their entire lifetimes.

Now, every widespread change brings some maladjustment to many people. So maladjustments have been multiplying prodigiously. Have mental and nervous disturbances increased as fast as maladjustments in the last 1000 years? It seems plain enough that disturbances in our surroundings have long been exceeding disturbances in our minds by many hundredfold. Had the two increased at about the same pace, virtually everybody would now be touched with some neurosis or psychosis. And every year would reveal a measurable increase in the gravity of these aberrations. This much, then, seems certain: *the increase in maladjustments to surroundings is more than enough to account for all mental and nervous diseases as well as for all crime, suicide, and intellectual morbidity.* Why then drag in a hypothesis about weakened germ-plasm to explain what is already sufficiently explained?

Mankind has long since committed itself irrevocably to the policy of progress. *As far as the human side of this problem goes, then, there is only one solution; and that is to breed the widest possible variety of men with special hypersensitivities toward all the aspects of Nature which need to be understood and conquered. For men will react vigorously, intelligently, and persistently only to things which they acutely sense.*

When toughness involves low sensitivity, it puts an end to progress. Observe the Chinese coolie. He is the perfect stand-patter. Nature has made

him too tough. He resists typhoid, cholera, and other plagues which slaughter white men. He recovers without medical treatment from wounds which would kill any of us in a jiffy. He toils dumbly for 15 hours a day under the hot sun and manages to keep alive on a handful of rice.

What is he worth as an instrument of progress? Nothing! He is not even a good laborer. Insensitive to heat, to cold, to praise and blame, to ideals, and to almost everything else, he is the little brother of the pachyderm. He is the human turtle. Blank-eyed and serene as a stone is serene, he never tries to ameliorate his own living-conditions. He agrees with the Biological Bloc that man must be hard, hard, hard!

The tough animal has few sensory nerves. For a million years, these toughs got along passably. But at length they began to lose touch with current events. They could not notice what was going on around them. And the less they noticed, naturally the less they had to think about. So their minds slowed down, and Nature ran away from them, fully persuaded that it would be wiser to manufacture a batch of tender-minded things.

We want more people with eyes so sensitive that they see things invisible to us. We want more people with ears so sensitive that they catch sounds beyond normal range. We want more people with fingers delicate far beyond the powers of the common digit. We want more people with amazing memories which hold details usefully; more abnormal rich fantasies that conjure up strange pictures; more maniacal curiosity to see how the wheels go around; more of everything in the way of a capacity to detect and construe things, affairs, and forces in this puzzling world which swarms with so many realities that escape us normal citizens.

Progress in the arts comes out of such hypersensitiveness. So also does progress in the sciences. So even in business. Modern business seeks to sharpen the sensitivity to the public in all matters of appetite, taste, social conformity, and personal ambition. Hatters strive to make men "hat-conscious." Hosiers

have reaped fortunes by making women "leg-conscious." And the department store thrives chiefly by keeping its public "style-conscious" with regard to a hundred commodities. What is all this if not a process of heightening people's sensitivities toward differences and qualities which hitherto have remained unnoticed?

In school the dirty little boy is made sensitive about soap and cleanliness. The slovenly girl is made to feel the nastiness of her ways. Thus are the likes and dislikes, the prejudices and passions of us all intensified toward everything from dress-patterns up to the League of Nations.

Hypersensitivity is the very foundation of an expanding intelligence. The more things we detect and distinguish, the more holds we have on the universe. He who senses two shades of blue where I sense only one is, by that much, closer to reality than I. He who entertains two distinct emotions toward a song which rouses only one in me lives a richer life than I live.

Every hypersensitivity is a little abnormal. And so I am urging that, instead of our aiming to multiply the big-brained species of man, as the Biological Bloc advocates, we encourage and protect all sorts of abnormally sensitive people.

*We need such hypersensitives far more than we need the big brains.* The gravest trouble with our world today is not a shortage of intellect; it is a shortage of feeling, a dullness toward plain dirt, grime, muck, nastiness, fraud, injustice, fanaticism, brutality, greed, and graft. We are not irritated easily enough by men or by matters which ought to infuriate us, if we wish to better ourselves.

We need more men with abnormal noses who rebel savagely at every open garbage can! More women with abnormal eyes who, infuriated at the sight of bill-boards along our highways, attack and burn these monstrosities in frenzied mobs! More citizens with abnormal morality who exclude from their homes and clubs such scum as the blackmailing journalist, the crooked banker, and the blue-sky stock swindler, with the same deeply esthetic motive that moves them to sprinkle cockroach powder around their drain-pipes!

More freaks with abnormal curiosity who are delighted to spend their lives nosing into questionable affairs of business and politics, just to see what's going on there! More eccentrics with abnormal fears who go up and down the world sniffing for evils, perils, epidemics, impending railway collisions, cyclones, and dope-peddlers! More cranks with abnormal artistry who annoy us all with their demands that we beautify our parks, our front lawns, our shirt-fronts, our religions, our moral systems, and our teeth!

Because I defend and help all such abnormally sensitive folk, I hereby forgive the Eugenical Bloc for their mistaken zeal. They too are just such hypersensitives. That their sensitivity has exceeded their logic is not to be held against them. Let them go right on wondering and imagining strange dangers to the human race! Maybe one out of a hundred of all their fears may some day turn out well founded. Then we shall have occasion to bless them. After all, we must not expect more than one new truth from any man in his lifetime. Even one such from every hypersensitive in a lifetime would create an appalling surplus of truths which the world could not absorb at any price.

## The Force of Statistics

(Continued from Inside Front Cover)

"Fired at the sun," nodded the other approvingly, as if he had often seen it done.

"And traveling at the rate of—of—"  
"Of three cents a mile," hinted the listener.

"No, no, you misunderstand me,—but

traveling at a fearful rate, simply fearful, sir, would take a hundred million, no, a hundred billion—in short, would take a scandalously long time in getting there—"

At this point I could stand no more, and passed into the smoking car.

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